



# 1953 Flying Red Horse Almanac

PUBLISHED BY SOCONY-VACUUM OIL CO., INC.





II  
TWINS  
Gemini  
The Arms



♌  
LION  
Leo  
The Heart



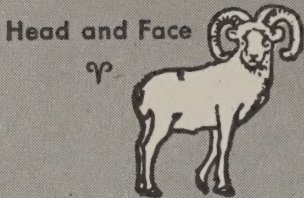
♎  
BALANCE  
Libra  
The Reins



♐  
ARCHER  
Sagittarius  
The Thighs



♒  
WATERMAN  
Aquarius  
The Legs



RAM  
Aries



♉  
BULL  
Taurus  
The Neck



♊  
CRAB  
Cancer  
The Breast



♍  
VIRGIN  
Virgo  
The Bowels

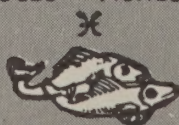


♏  
SCORPION  
Scorpio  
The Secrets



♑  
GOAT  
Capricornus  
The Knees

PISCES FISHES



The Feet

# 1953 Almanac

## Being—until July 4th—the 177th Year of American Independence

### Morning and Evening Stars, 1953

Mercury (♿) will be a Morning Star from January 1 to February 2, March 18 to May 24, July 25 to September 7 and November 14 to December 31; an Evening Star from February 2 to March 18, May 24 to July 25 and September 7 to November 14.

Venus (♀) will be an Evening Star to April 13, then a Morning Star to the end of the year.

Mars (♂) will be an Evening Star to July 8, then a Morning Star to the end of the year.

Jupiter (♃) will be an Evening Star to May 24, a Morning Star from then to December 13, then an Evening Star again to the end of the year.

Saturn (♄) will be a Morning Star to April 14, an Evening Star from then to October 23, then a Morning Star again to the end of the year.

### Chronological Cycles, 1953

|                                   |      |
|-----------------------------------|------|
| Dominical Letter.....             | D    |
| Epact.....                        | 14   |
| Lunar Cycle or Golden Number..... | 16   |
| Solar Cycle.....                  | 2    |
| Roman Indiction.....              | 6    |
| Julian Period.....                | 6666 |
| Dionysian Period.....             | 282  |
| Jewish Lunar Cycle.....           | 13   |

### Eclipses in 1953

In the year 1953 there will be five eclipses, three of the Sun and two of the Moon, as follows:

I. A total eclipse of the Moon, January 29; the beginning visible generally in Asia, the extreme northwestern part of Australia, Europe, Africa, the Arctic regions, the northeastern part of North America, and the eastern part of South America; the ending visible generally in western Asia, Europe, Africa, the Arctic regions, North America, except the extreme northwestern part, and South America. The magnitude of the eclipse is 1.337.

II. A partial eclipse of the Sun, February 13; visible in eastern Asia and western Alaska. The magnitude of the greatest eclipse is 0.760.

III. A partial eclipse of the Sun, July 10; visible in the northwestern part of Canada, eastern Alaska, the Arctic regions and Greenland, except the southern part. The magnitude of the greatest eclipse is 0.201.

IV. A total eclipse of the Moon, July 26; the beginning visible generally in North America, except the eastern and northeastern parts, South America, except the eastern part, Antarctica, Australia and the extreme northeastern part of Asia; the ending visible generally in the northwestern tip of North America, Australia, Antarctica, and eastern and central Asia. The magnitude of the eclipse is 1.869.

V. A partial eclipse of the Sun, August 9; visible in the extreme southern part of South America. The magnitude of the greatest eclipse is 0.372.



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## 1953 MONTHLY CALENDARS

|                    |    |                     |    |
|--------------------|----|---------------------|----|
| JANUARY. . . . .   | 10 | JULY . . . . .      | 40 |
| FEBRUARY . . . . . | 12 | AUGUST . . . . .    | 42 |
| MARCH . . . . .    | 16 | SEPTEMBER . . . . . | 46 |
| APRIL . . . . .    | 32 | OCTOBER. . . . .    | 48 |
| MAY . . . . .      | 34 | NOVEMBER. . . . .   | 50 |
| JUNE . . . . .     | 38 | DECEMBER . . . . .  | 52 |



# A Chunk o' Dirt

*Dedicated to my Mother and Father, who have demonstrated their true affection for a "chunk o' dirt" by a lifetime of loving conservation of the soil.*

BY W. D. DAVIS  
FARM MANAGEMENT ASSOCIATES, INC.  
KANSAS CITY 6, MISSOURI



The most valuable thing in the world is a chunk o' dirt. True, it's very commonplace. It's everywhere. We walk on it, build roads on it, use it for our building foundations and rarely, if ever, do we recognize its true worth. Yet over one hundred million men have given their lives in battle for its possession since the beginning of recorded history. It comprises more real wealth than all other forms of property and investment known to man. It feeds and clothes us throughout our lives.

Since it is so valuable to us we must study and understand it and yes, love it! I recommend to you the real love of the dirt so well shown by my own father, a master farmer in his own right, when he left the home farm for what we all thought was his last trip to the hospital—that real and enduring anguish that he so strongly felt and so covered his face as he looked at “his dirt” for what he thought was the last time. Then too, there was that overwhelming joy at the return so little hoped for, when he again came back to his land, his dirt, to live on it, and love it for the rest of his days. The uncontrolled tears that flowed unheeded down his cheeks amply spoke of his affection as he reached slowly down, picked up a “chunk” and again felt its velvet smoothness in his hand. Yes, we must learn to love the dirt. Because only by loving it will we study and conserve it and encourage others to do so.

Our dirt is fast getting away. Through heavy cropping and ero-



sion, tons of top-soil leave the uplands and choke rivers and lakes. Yes, even the ocean recedes before it as the deltas build their bases.

As top-soil is depleted so does our nation melt away. No nation under the sun has ever been able to stay great and strong when its top-soil was gone. Truly, civilization rests on the seven inches of top-soil that covers the earth.

That part of Asia once embraced by the splendid civilizations of Assyria and Babylonia has not always been a desert. An abundant agriculture flourished there, near the dawn of history. Men robbed the soil and eventually the desert reigned.

Rome rose on her seven hills, conquered vast domains and was mistress of the world. By the time the Republic perished, the soils of Italy had reached the point where the nation was no longer self-supporting. Under the later Emperors, tribute in the form of food was extracted from the provinces and distant colonies until even the deep soil of Egypt was exhausted. The mother country, like a greedy landlord, demanded more and more grain, until the cupboard was

empty. Then Rome succumbed to the barbarians.

Driven by the fatal cry of *lebensraum*, Germany made a desperate gamble for the fertile plains of the Ukraine, just as Japan grasped at the rich, thick soil of Manchuria. Failing in their ruthless quest for dirt, both suffered defeat, and degradation from which they may never rise again.

Thus America, our America of today, strong because of her rich soil that makes her people strong, may rise and fall as have other great nations of the past but for you and me. We must keep America strong—strong in her top-soil—strong in her mind and body. Only by learning and loving her dirt can we hope for success.

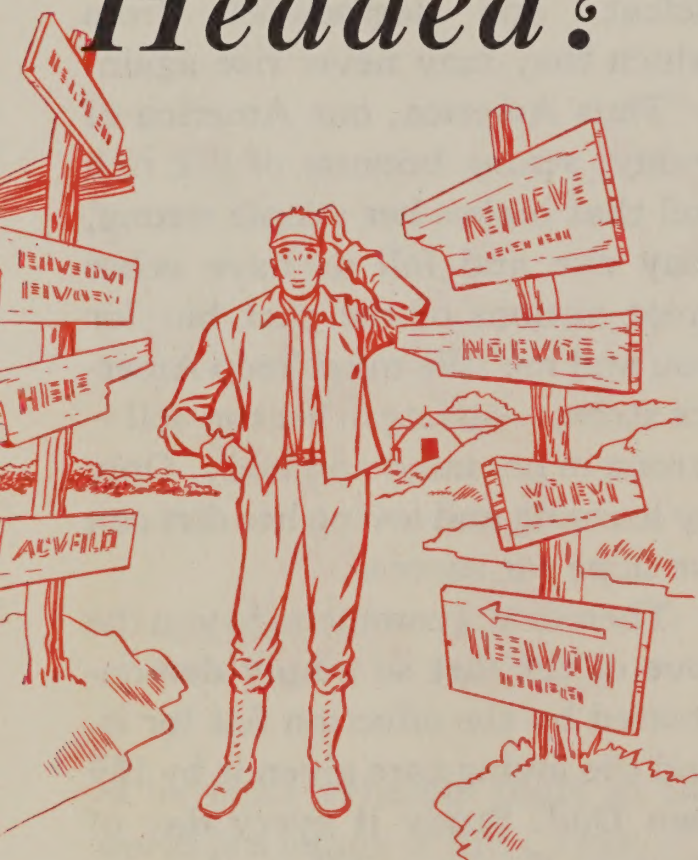
Therefore, I commend to you the love of the dirt so amply demonstrated by the affection felt for it, and the loving care given it by my own Dad. Study it every day of the year. Conserve it through every thought and act. Encourage, yes, urge all men to respect and preserve it.

And may the great God give us courage and persistence in our appointed task, the true love and conservation of a chunk o' dirt.





# Where Are We Headed?



Farm plans depend on prices and prices depend on the state of business generally. For this reason, the farmer needs to know more than a little about economics. Farming itself is a business—a very big business in the aggregate.

We have learned to beware of figures and polls and charts that purport to give all the answers in capsule form, or of the fortune teller with his crystal ball. The farmer who looks for a forecast of the future that wraps the situation up in a neat little package telling him what and when to buy and to sell and to produce is not going to find it this side of heaven.

The best anyone can hope to do is to examine the past and see what signs or clues it offers for the future. History has

a way of repeating itself, but often in patterns that are unrecognizable as the events unfold. However, the more one studies markets and business and human action the more likely he is to recognize many of these patterns. In this Almanac we shall attempt to sketch a few of the influences that may be put together to cast a bit of light on the road ahead.

The first truth about farm prices that the past reveals is their continual up and down rhythm. The price line never remains on one general level for more than a few years at a time. A study of Chart I, "Prices of Farm Products," shows that only about twice since about 1783 has the curve of prices remained fairly stable for as long as ten years. Minor peaks and valleys recur rhythmically, somewhat oftener than every decade.

The second fact apparent from the chart is that the major price peaks coincide with the principal wars. Farm prices have risen sharply during and immediately after every important war. The Napoleonic Wars caused rises and falls between 1793 and 1815. The effect was up and down, but on the whole relatively high for the first half of that conflict. Then a decline set in. The War of 1812 drove prices back up, slightly higher than ever. Then at the war's end they dropped back to about the original low level. That same pattern is seen in each succeeding major war, with a variation now to be noted.

The third thing to observe is that with the Civil War and the two World Wars, new high peaks were reached. This is explainable. The Civil War has been called "the first total war of modern times." It affected the nation's economy profoundly. World War I affected it even more, because it was in truth a world struggle. World War II was felt still more acutely, probably because it was a war of machines, of "production," to a degree never before known. It also called into uniform more men and women, both actually and relatively, than did any previous clash of arms.

The fourth and last fact to note is that while each successive war peak in



Prices is higher than the preceding one, each valley is of about the same depth. This is confirmed by statistics which show that the average farm prices for the nation's 170-year history have risen somewhat, but not very much. They have risen because the peaks have been progressively higher, and in spite of the fact that the valleys are about the same depth.

### The Situation Today

As yet there is no valley following World War II. Analysis of this apparent inconsistency brings us to the present situation, and why it differs from those that followed previous major wars.

The inconsistency in today's pattern is more seeming than real. In the first place, World War II is not over, or perhaps it would be more accurate to say that World War III has begun. Three years after VJ Day in 1945, the price curve did start a nosedive and seemed headed back to

the usual post-war valley. But the dive was soon arrested by the Korean action and the resulting huge rearmament program. Insofar as our economy is affected, war is still in progress.

Go back now to the Napoleonic Wars at the end of the 18th and beginning of the 19th century, and you quickly perceive a parallel to today, although at a much lower price level. We are rising and falling now in the grip of a series of world wars, much as was the case when Napoleon's armies and fleets contended with most of the other nations of Europe. There were about three truce periods between 1793 and 1815.

Other circumstances also influence today's situation. One has been the inflationary or "easy money" policy of the government. The national debt was not reduced as it was after World War I. Another has been the system of farm price supports, in part counteracted by OPS. One tended to stabilize at the floor level,

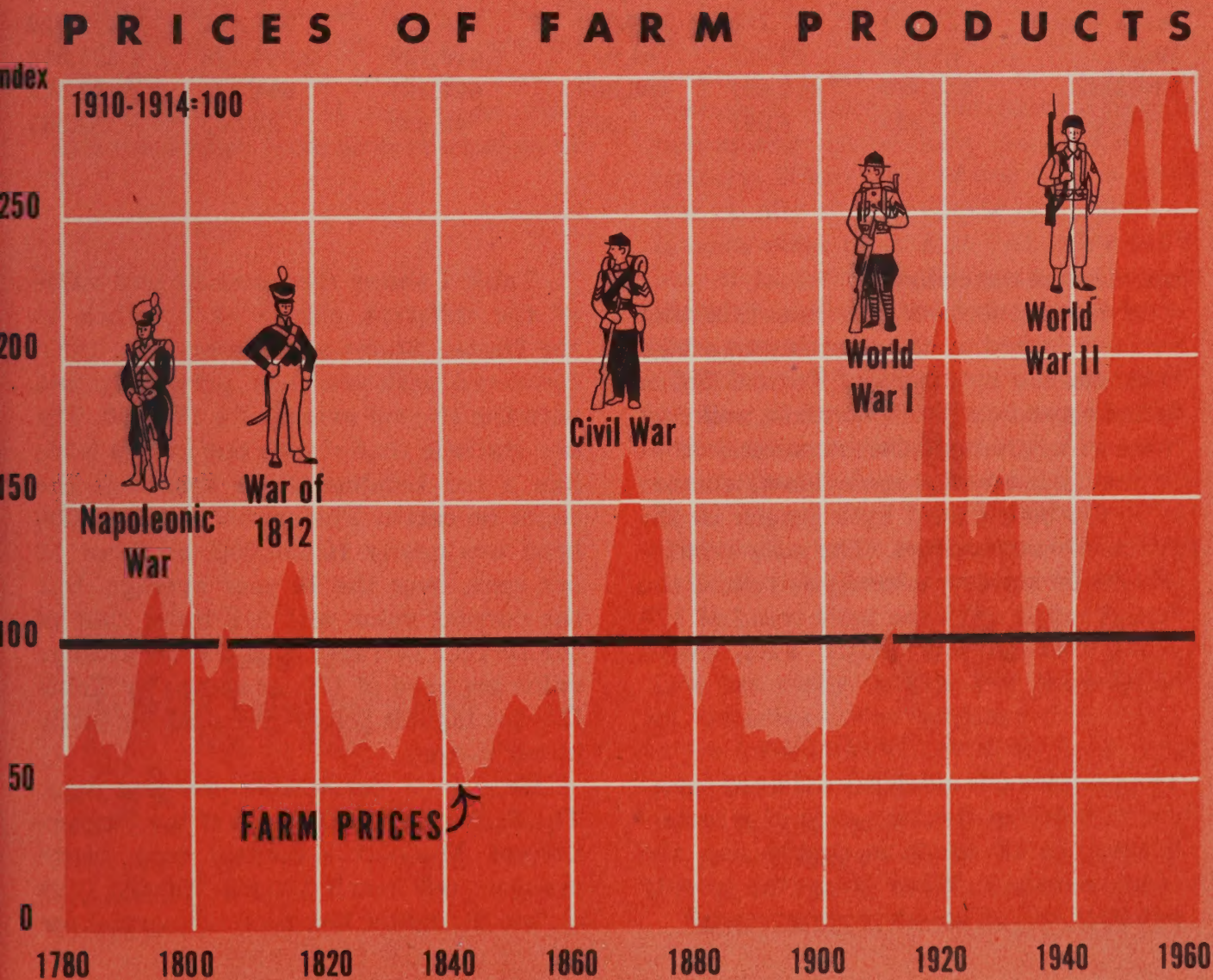


Chart 1





**Table 1**                      **1952 Livestock — Numbers and Values**

| Livestock on Farms | 1-1-52  | Numbers | Average |            | Values     | Average   |
|--------------------|---------|---------|---------|------------|------------|-----------|
|                    | 1000's  | 1-1-51  | '41-50  | 1-1-52     | 1-1-51     | '41-50    |
|                    |         | 1000's  | 1000's  | 1000's     | 1000's     | 1000's    |
| Horses             | 4,370   | 4,993   | 8,135   | \$ 199,958 | 217,116    | 523,713   |
| Mules              | 1,923   | 2,074   | 3,100   | 139,008    | 169,270    | 384,924   |
| Cattle (all)       | 88,062  | 82,025  | 79,464  | 15,733,051 | 13,160,665 | 6,759,754 |
| Milk Cows          | 23,407  | 23,722  | 25,907  | 5,854,600  | 5,183,235  | 3,149,518 |
| Sheep (all)        | 31,725  | 30,635  | 43,755  | 882,524    | 808,108    | 469,636   |
| Stock Sheep        | 27,841  | 27,253  | 37,880  | 778,671    | 721,484    | 403,022   |
| Hogs               | 63,903  | 62,852  | 61,977  | 1,910,126  | 2,094,238  | 1,535,866 |
| Chickens           | 453,498 | 442,657 | 486,803 | 694,391    | 644,951    | 587,317   |
| Turkeys            | 5,835   | 5,091   | 6,324   | 40,838     | 33,007     | 33,391    |

the other at the ceiling.

A few economists now maintain that we have jacked up the economy to a high price plateau by means of Federal deficit financing and economic controls, and that there we will remain. Others maintain that all that goes up must come down, whether it be the balls tossed by a juggler or the prices of commodities. The only conclusion to be stated positively is that if the first group is right the price trend of 170 years, through four major wars, would be reversed.

### *The Price Teeterboard*

The price level is a balance attained somewhere between the two ends of a teeterboard, one of which is supply and the other demand. What does the supply situation tell us about present trends?

Table I shows the numbers and value of the different classes of livestock in the United States as of January 1, 1952, compared with one year previously and with the 10-year average for 1941-50. The one statistic that stands out in this table like a red bandage on a thumb is the count on cattle. The census of 88,000,000 head was nearly 10,000,000, or about 12 per cent, over the 10-year average. But the current value was 2½ times that of the 10-year average! This was an average value per head of 179, as shown by Table II—the highest prices ever paid for cattle in our history.

Here is a perceptible warning sign. The College of Agriculture of the University of Missouri estimates that cattle numbers will reach 100,000,000 by 1954 or '55. Slaughter has been off normal for



several years, and reached a 10-year low in 1951, owing to a number of factors, chief of which are probably the improved pastures, the plenitude of rain for several seasons in a row, and the resistance of cattle men to the price rollback. But, says this same source, slaughter will be resumed with a vengeance and may well reach the astronomical figure of 40,000,000 head a year—about 50 per cent over that for 1951.

“Heretofore, prices have declined under similar circumstances by as much as 50 per cent in four to five years.” Present prices rose to the current figure by 50 per cent in just four years.

If we go back to Table I and study the comparisons it is seen that no other class of livestock is excessive in numbers. Surprising as it may seem in the light of dairy prosperity, this is true particularly of dairy cows, which numbered about 8 per cent under the 10-year average. This may be accounted for by the grave shortage of farm labor.

Now, let's look at demand in the domestic market. Here there are two principal indexes to consider. First is employment. Chart II (next page) shows that the civilian labor force reached an all-

time high of approximately 61,000,000 as of January 1, 1951, then declined slightly during 1952. This figure is up from 44,000,000 in 1938, the last comparatively normal year. Such an astonishingly high employment can only be accounted for by the demands of war industries and the further shortage of civilian goods occasioned by the years of predominantly war production.

There are two commonly consulted sources on the second demand index—that of buying power. Disposable personal income started to rise in 1939, the year after employment began its incline, and has continued almost steadily to increase to the 1952 figure (estimated) of 226.3 billion dollars. Effective buying income per family increased from \$2,240 in 1936 to \$4,929 in 1951.

It must be understood that these income figures do not mean all they appear to mean. The buying power of the dollar has declined since 1938 by more than 50 per cent.

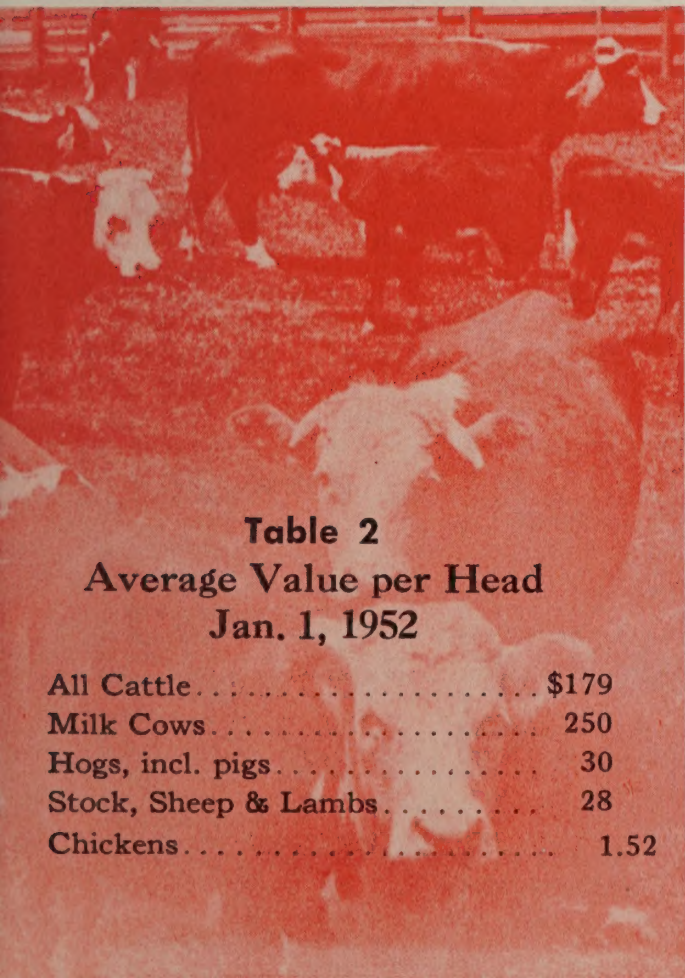
Just what the statistics mean in terms of food and fiber consumption is by no means a simple question to resolve. In the case of food, the total calory consumption appears to be fairly constant in this country. When more of one food is eaten it is usually at the expense of a reduction in some other food. But that is the problem of farmers—to adapt themselves to these changing dietary trends and produce accordingly.

While the population is increasing, the number of farmers continues to decrease, which means a larger share of the consumer food bill per farmer. This trend could be reversed quickly should industrial employment take a drop and people begin flocking back from city to country.

### Things to Watch

One can easily become lost in the forest of statistics unless he pays attention to a few landmarks of principle. Among the principles to remember are these:

1. Supply and demand prices still prevail largely as to farm products, but far less as to manufactured goods. Most things a farmer buys are subject



**Table 2**  
**Average Value per Head**  
**Jan. 1, 1952**

|                           |       |
|---------------------------|-------|
| All Cattle.....           | \$179 |
| Milk Cows.....            | 250   |
| Hogs, incl. pigs.....     | 30    |
| Stock, Sheep & Lambs..... | 28    |
| Chickens.....             | 1.52  |





# January

## MOON'S PHASES

|      | EASTERN   | CENTRAL    | MOUNTAIN   | PACIFIC   |
|------|-----------|------------|------------|-----------|
|      | D. H. M.  | D. H. M.   | D. H. M.   | D. H. M.  |
| L.Q. | 8 5 09 M  | 8 4 09 M   | 8 3 09 M   | 8 2 09 M  |
| N.M. | 15 9 08 M | 15 8 08 M  | 15 7 08 M  | 15 6 08 M |
| F.Q. | 22 0 43 M | 21 11 43 A | 21 10 43 A | 21 9 43 A |
| F.M. | 29 6 44 A | 29 5 44 A  | 29 4 44 A  | 29 3 44 A |

## LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

## LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

## LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. M. | D. W. | HISTORICAL EVENTS                 | Moon Signs | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. | SUN SLOW M | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. |
|-------|-------|-----------------------------------|------------|-----------------|----------------|------------------|------------|-----------------|----------------|------------------|-----------------|----------------|------------------|
| 1     | Th    | New Year's Day (Circumcision)     | ☾          | 7 30            | 4 37           | 6 8              | 4          | 7 25            | 4 42           | 6 13             | 7 25            | 5              | 6 35             |
| 2     | Fr    | ☾ in ♊, ☿ in Perihelion           | ☾          | 7 31            | 4 38           | 7 12             | 4          | 7 25            | 4 43           | 7 16             | 7 25            | 6              | 7 33             |
| 3     | Sa    | Korean Gov. evacuated Seoul, 1951 | ☾          | 7 31            | 4 39           | 8 15             | 5          | 7 25            | 4 44           | 8 17             | 7 25            | 7              | 8 29             |

### 1. 2nd Sunday after Christmas Matt. 2 Day's length 9h. 10m. 9h. 20m. 10h. 4m.

|    |    |                                       |   |      |      |       |   |      |      |       |      |    |       |
|----|----|---------------------------------------|---|------|------|-------|---|------|------|-------|------|----|-------|
| 4  | Su | Holy Name of Jesus ☾ in Apog., ☿ in ♊ | ☾ | 7 30 | 4 40 | 9 17  | 5 | 7 25 | 4 45 | 9 18  | 7 35 | 7  | 9 24  |
| 5  | Mo | ☿ Stationary                          | ☾ | 7 30 | 4 41 | 10 18 | 6 | 7 25 | 4 46 | 10 18 | 7 35 | 8  | 10 19 |
| 6  | Tu | Epiphany ☿ ☽ ☾                        | ☾ | 7 30 | 4 42 | 11 18 | 6 | 7 25 | 4 47 | 11 17 | 7 35 | 9  | 11 12 |
| 7  | We | ☾ Yanks bomb Nagoya, Japan, '45       | ☾ | 7 30 | 4 43 | morn  | 7 | 7 25 | 4 47 | morn  | 7 35 | 10 | morn  |
| 8  | Th | ☾ 8. ☽ ☿ ☾                            | ☾ | 7 30 | 4 44 | 12 21 | 7 | 7 25 | 4 48 | 12 18 | 7 35 | 11 | 12 08 |
| 9  | Fr | ☽ ☿ ☾                                 | ☾ | 7 30 | 4 45 | 1 25  | 7 | 7 25 | 4 49 | 1 22  | 7 35 | 12 | 1 6   |
| 10 | Sa | U. S. Troops capt. Lingayen, 1945     | ☾ | 7 30 | 4 46 | 2 33  | 8 | 7 25 | 4 51 | 2 29  | 7 35 | 13 | 2 7   |

### 2. 1st Sunday after Epiphany Luke 2 Day's length 9h. 17m. 9h. 27m. 10h. 11m.

|    |    |                                   |   |      |      |      |    |      |      |      |      |    |      |
|----|----|-----------------------------------|---|------|------|------|----|------|------|------|------|----|------|
| 11 | Su | Feast of the Holy Family          | ☾ | 7 30 | 4 47 | 3 43 | 8  | 7 25 | 4 52 | 3 38 | 7 35 | 14 | 3 11 |
| 12 | Mo | Jewish Riots in Palestine, 1947   | ☾ | 7 30 | 4 48 | 4 53 | 9  | 7 25 | 4 53 | 4 46 | 7 35 | 14 | 4 17 |
| 13 | Tu | Race Riots in S. Africa, 1949     | ☾ | 7 29 | 4 49 | 5 59 | 9  | 7 24 | 4 54 | 5 52 | 7 35 | 15 | 5 20 |
| 14 | We | ☾ ☽ ☿ ☾, ☽ in aphelion            | ☾ | 7 29 | 4 51 | 6 55 | 9  | 7 24 | 4 55 | 6 48 | 7 35 | 16 | 6 20 |
| 15 | Th | ☾ 15. U.N. Troops capt. Osan, '51 | ☾ | 7 28 | 4 52 | sets | 10 | 7 23 | 4 56 | sets | 7 25 | 17 | sets |
| 16 | Fr | ☾ in ♋, ☾ in perigee              | ☾ | 7 28 | 4 53 | 6 29 | 10 | 7 23 | 4 57 | 6 33 | 7 25 | 18 | 6 49 |
| 17 | Sa | ☽ ☿ ☾, ☽ ☿ ☽                      | ☾ | 7 27 | 4 54 | 7 49 | 10 | 7 23 | 4 58 | 7 51 | 7 25 | 19 | 8 1  |

### 3. 2nd Sunday after Epiphany Mark 1 Day's length 9h. 28m. 9h. 37m. 10h. 18m.

|    |    |                                    |   |      |      |       |    |      |      |       |      |    |       |
|----|----|------------------------------------|---|------|------|-------|----|------|------|-------|------|----|-------|
| 18 | Su | ☽ ☿ ☾, ☽ ☿ ☾                       | ☾ | 7 27 | 4 55 | 9 8   | 11 | 7 22 | 4 59 | 9 9   | 7 25 | 20 | 9 11  |
| 19 | Mo | Lee's Birthday                     | ☾ | 7 26 | 4 56 | 10 24 | 11 | 7 22 | 5 0  | 10 23 | 7 15 | 21 | 10 19 |
| 20 | Tu | Inauguration Day ☽ enters ♋        | ☾ | 7 25 | 4 57 | 11 39 | 11 | 7 21 | 5 1  | 11 36 | 7 15 | 21 | 11 27 |
| 21 | We | ☾ 21. (CST) Planet Pluto disc. '30 | ☾ | 7 25 | 4 59 | morn  | 12 | 7 21 | 5 3  | morn  | 7 15 | 22 | morn  |
| 22 | Th | ☾ 22. (EST) ☽ ☿ ☾                  | ☾ | 7 24 | 5 0  | 12 53 | 12 | 7 20 | 5 4  | 12 49 | 7 15 | 23 | 12 33 |
| 23 | Fr | France annexed Madagascar, 1896    | ☾ | 7 23 | 5 2  | 2 6   | 12 | 7 19 | 5 5  | 2 0   | 7 05 | 24 | 1 38  |
| 24 | Sa | ☽ in ♋                             | ☾ | 7 23 | 5 3  | 3 16  | 12 | 7 19 | 5 6  | 3 10  | 7 05 | 25 | 2 42  |

### 4. 3rd Sunday after Epiphany John 2 Day's length 9h. 32m. 9h. 49m. 10h. 27m.

|    |    |                                        |   |      |      |       |    |      |      |       |      |      |       |
|----|----|----------------------------------------|---|------|------|-------|----|------|------|-------|------|------|-------|
| 25 | Su | ☽ stationary                           | ☾ | 7 22 | 5 4  | 4 20  | 13 | 7 18 | 5 7  | 4 14  | 6 59 | 5 26 | 3 42  |
| 26 | Mo | U. S. Price and Wage Freeze, 1951      | ☾ | 7 21 | 5 5  | 5 16  | 13 | 7 17 | 5 9  | 5 10  | 6 59 | 5 27 | 4 38  |
| 27 | Tu | ☽ ☽ ☾                                  | ☾ | 7 20 | 5 7  | 6 4   | 13 | 7 16 | 5 10 | 5 59  | 6 58 | 5 28 | 5 28  |
| 28 | We | ☾ French Premier Plevin in U.S. '51    | ☾ | 7 19 | 5 8  | 6 41  | 13 | 7 15 | 5 12 | 6 37  | 6 58 | 5 29 | 6 10  |
| 29 | Th | ☾ 29. McKinley's Birthday, ☾ in ♋      | ☾ | 7 18 | 5 9  | rises | 13 | 7 14 | 5 13 | rises | 6 57 | 5 30 | rises |
| 30 | Fr | USN shelled Kansong, '51 [Eclipse of ☾ | ☾ | 7 17 | 5 10 | 6 5   | 13 | 7 13 | 5 14 | 6 8   | 6 57 | 5 31 | 6 21  |
| 31 | Sa | ☽ Gr. Elong. E. 46° 54'                | ☾ | 7 16 | 5 11 | 7 7   | 14 | 7 12 | 5 15 | 7 9   | 6 56 | 5 32 | 7 17  |

## WEATHER FORECAST FOR JANUARY

1st to 3rd—Fair and cold in northwest and on eastern slope of Rockies. Light snows in upper Mississippi valley and along Great Lakes. Pleasant and cool over southwest and middle west. Very cold in northeast.

4th to 7th—Changeable weather in the southeast and quite cold for this time of year in the southwest. Local snows on the northern plateau and drizzling rains in Oregon and Washington.

8th to 11th—Stormy and unsettled in many sections. Heavy snows and blizzards in the Ohio River valley and eastward into New England. Gales along the Atlantic coast. Pleasant weather in the southwest.

12th to 15th—Sleet and snow in the Mississippi valley and showers along the Pacific coast. Wet and foggy on the south Atlantic coast. Clear and dry in the southwest and on the southern plateau.

16th to 19th—Very cold on the northern plains, chilling winds, as the storm area moves into Great Lakes region. Windy and colder in southeast, where heavy frosts will occur. Snow storms in the Appalachian Mountains.

20th to 23rd—Little rain in south, followed by warm, pleasant weather in Gulf states. Cold, blustery winds in middle west and over western plains. Windy, local rains in lower Mississippi valley. Snow in New England.

24th to 27th—Changeable, windy with fierce, blustery storms the first of week in upper Mississippi valley and along Missouri River. Heavy snows in north Atlantic states and rains further south. Rain on California coast.

28th to 31st—Changeable and unsettled at most points in central areas. Local storms on western plateau and eastward over plains. Scattered rains in southeast and fogs lower Atlantic coast. Rains and sleet Oregon, Washington.

## PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 6, 7, 8, 9, 10, 13, 14, 17, 18, 21, 22, 23, 26, 27, 28.

Do not plant on 1, 2, 3, 4, 5, 11, 12, 15, 16, 19, 20, 24, 25, 29, 30, 31.



to “administered prices” and they do not react nearly as quickly to changed conditions as do farm commodities. Farm prices are relatively unstable.

2. Changes affecting price trends can come quickly. Weather conditions, foreign affairs, government action, prolonged strikes, etc., all are potential upsetters of the apple cart. The outlook can change sharply within a month, in respect either to supply or demand. But rises and drops in prices are never labelled as “temporary” or “long-time.” That is where judgment must be exercised, and where so often it goes wrong.

3. The labor market for agriculture is in the doldrums and will continue that way as long as war and inflation last.

4. High distribution costs continue to cause a wide margin between the prices received by farmers and those paid by consumers. This is not a conspiracy of business to exploit the farmer, but the inevitable result of a nation-wide distribution system that adds measurable values to all products. Farmers are fortunate that 65 per cent of the beef product dollar goes to them, and that

they get up to 12 cents out of a 19-cent quart bottle of milk delivered to a city resident. These are examples of high distribution efficiency.

5. Inflation problems are just as formidable and destructive in their possibilities as are depression problems. These are the days when a farmer *can* lose his shirt if he doesn’t look out.

An informed farmer comes to sense and pays attention to certain clues to the trends. He watches the relationships between the prices and supplies of the different farm products. We have shown that beef cattle are out of line with other products. A further indication of this fact is seen in the ratio between beef prices and milk prices. Normally—over a 30-year average—beef on the hoof has sold at approximately 4½ times the wholesale price of milk per pound. Lately the price of steers has been hovering around seven times the milk price.

In 1951 the price of choice steers at Chicago was 80 per cent higher than the farm price of hogs. Over a 30-year period steers averaged only 30 per cent more. As between pork and beef a change in consumption habits has been going on, owing

Chart 2







# February

## MOON'S PHASES

|      | EASTERN   | CENTRAL    | MOUNTAIN   | PACIFIC    |
|------|-----------|------------|------------|------------|
|      | D. H. M.  | D. H. M.   | D. H. M.   | D. H. M.   |
| L.Q. | 6 11 09 A | 6 10 09 A  | 6 9 09 A   | 6 8 09 A   |
| N.M. | 13 8 10 A | 13 7 10 A  | 13 6 10 A  | 13 5 10 A  |
| F.Q. | 20 0 44 A | 20 11 44 M | 20 10 44 M | 20 9 44 M  |
| F.M. | 28 1 59 A | 28 0 59 A  | 28 11 59 M | 28 10 59 M |

## LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

## LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

## LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. M. | D. W. | HISTORICAL EVENTS | Moon Signs | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. | SUN SLOW M | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. | Sun rises H. M. | Sun sets H. M. | Moon rises H. M. |
|-------|-------|-------------------|------------|-----------------|----------------|------------------|------------|-----------------|----------------|------------------|-----------------|----------------|------------------|
|-------|-------|-------------------|------------|-----------------|----------------|------------------|------------|-----------------|----------------|------------------|-----------------|----------------|------------------|

### 5. Septuagesima Sunday

Matt. 20

Day's length 9h. 58m.

10h. 4m.

10h. 38m.

|      |                                      |   |           |                   |                 |       |
|------|--------------------------------------|---|-----------|-------------------|-----------------|-------|
| 1 Su | ♄ in upogee, ☐ ♃ ☉                   | ♍ | 7 15 5 13 | 8 8 14 7 11 5 17  | 8 9 6 55 5 33   | 8 11  |
| 2 Mo | Purification (Candlemas), Ground Hog | ♍ | 7 14 5 14 | 9 9 14 7 10 5 18  | 9 8 6 54 5 34   | 9 6   |
| 3 Tu | ♂ Gr. Hel. Lat. S. [Day, Sup. ♂ ♀ ☉] | ♍ | 7 13 5 16 | 10 10 14 7 9 5 19 | 10 8 6 54 5 34  | 10 1  |
| 4 We | Southern Confederacy formed, 1861    | ♍ | 7 12 5 17 | 11 13 14 7 8 5 20 | 11 10 6 53 5 35 | 10 57 |
| 5 Th | ♄ ♀ ♄, ♂ ♃ ♄, ♃ stationary           | ♍ | 7 11 5 18 | morn 14 7 7 5 21  | morn 6 52 5 36  | 11 55 |
| 6 Fr | ♄ N. Jer. Train Wreck (84d), '51     | ♍ | 7 10 5 19 | 12 18 14 7 6 5 23 | 12 14 6 52 5 37 | morn  |
| 7 Sa | U. N. Troops shelled Seoul, 1951     | ♍ | 7 8 5 21  | 1 25 14 7 5 5 24  | 1 20 6 51 5 38  | 12 56 |

### 6. Sexagesima Sunday

Luke 8

Day's length 10h. 15m.

10h. 21m.

10h. 49m.

|       |                                          |   |          |                   |                |      |
|-------|------------------------------------------|---|----------|-------------------|----------------|------|
| 8 Su  | New Mex. Mine Disaster (120d), 1923      | ♈ | 7 7 5 22 | 2 34 14 7 4 5 25  | 2 27 6 50 5 39 | 1 59 |
| 9 Mo  | Meat Controls in U. S., 1951             | ♈ | 7 6 5 24 | 3 39 14 7 3 5 26  | 3 32 6 50 5 40 | 3 1  |
| 10 Tu | ♄ ♀ ☉                                    | ♈ | 7 5 5 25 | 4 38 14 7 2 5 27  | 4 31 6 49 5 41 | 4 1  |
| 11 We | S S. Larchmont Collision (200d), 1907    | ♈ | 7 4 5 27 | 5 29 14 7 1 5 29  | 5 23 6 48 5 42 | 4 56 |
| 12 Th | ☾ Lincoln's Birthday                     | ♈ | 7 2 5 28 | 6 11 14 7 0 5 30  | 6 6 6 47 5 43  | 5 43 |
| 13 Fr | ☾ 13. ☾ in ♋, Eclipse of ☉               | ♈ | 7 1 5 29 | sets 14 6 58 5 31 | sets 6 46 5 44 | sets |
| 14 Sa | St. Valentine's Day, ☾ in perigee, ☿ ♀ ☾ | ♈ | 7 0 5 30 | 6 40 14 6 57 5 32 | 6 41 6 45 5 45 | 6 48 |

### 7. Quinquagesima Sunday

Luke 18

Day's length 10h. 33m.

10h. 37m.

11h. 1m.

|    |    |                                        |   |           |          |           |                 |       |
|----|----|----------------------------------------|---|-----------|----------|-----------|-----------------|-------|
| 15 | Su | Jew-Arab Battle in Palestine, 1948     | ♈ | 6 58 5 31 | 8 0 14   | 6 56 5 33 | 7 59 6 44 5 45  | 7 58  |
| 16 | Mo | ♂ ♀ ☾                                  | ♈ | 6 57 5 33 | 9 18 14  | 6 55 5 34 | 9 16 6 43 5 46  | 9 9   |
| 17 | Tu | Shrove Tuesday. Mardi Gras, ♂ ♀ ☾      | ♈ | 6 55 5 34 | 10 36 14 | 6 53 5 36 | 10 33 6 42 5 47 | 10 18 |
| 18 | We | Ash Wednesday (Lent begins), ☉ ent's ♋ | ♈ | 6 54 5 35 | 11 52 14 | 6 51 5 37 | 11 47 6 41 5 48 | 11 27 |
| 19 | Th | ☾ ♂ ♋ ☾                                | ♈ | 6 53 5 37 | morn 14  | 6 50 5 39 | morn 6 40 5 49  | morn  |
| 20 | Fr | ☾ 20. British Rail Strike, 1951        | ♈ | 6 51 5 38 | 1 5 14   | 6 48 5 40 | 12 59 6 39 5 50 | 12 33 |
| 21 | Sa | Floods in California, 1949             | ♈ | 6 50 5 39 | 2 12 14  | 6 47 5 41 | 2 5 6 38 5 51   | 1 37  |

### 8. Quadragesima Sunday Lent 1 Matt. 4

Day's length 10h. 52m.

10h. 57m.

11h. 16m.

|       |                                                       |   |           |         |           |                |      |
|-------|-------------------------------------------------------|---|-----------|---------|-----------|----------------|------|
| 22 Su | Washington's Birthday. ☽ in ♋                         | ♈ | 6 48 5 40 | 3 11 14 | 6 45 5 42 | 3 4 6 36 5 52  | 2 34 |
| 23 Mo | ☿ ☽ ☾                                                 | ♈ | 6 46 5 42 | 4 2 13  | 6 44 5 44 | 3 55 6 35 5 52 | 3 25 |
| 24 Tu | Teacher Strike in Minneapolis, 1948                   | ♈ | 6 45 5 43 | 4 42 13 | 6 43 5 45 | 4 36 6 34 5 53 | 4 10 |
| 25 We | Ember Day                                             | ♈ | 6 43 5 44 | 5 15 13 | 6 41 5 46 | 5 10 6 33 5 54 | 4 48 |
| 26 Th | ☾ in ♋                                                | ♈ | 6 42 5 46 | 5 41 13 | 6 40 5 47 | 5 38 6 32 5 55 | 5 21 |
| 27 Fr | ☾ Ember Day. ☽ & ♀ in Perihelion                      | ♈ | 6 40 5 47 | 6 5 13  | 6 38 5 48 | 6 2 6 31 5 55  | 5 50 |
| 28 Sa | ☾ 28. Ember Day. Hebrew Fast of [Esther. ☾ in apogee] | ♈ | 6 39 5 48 | 6 25 13 | 6 37 5 49 | 6 23 6 30 5 56 | 6 17 |

## WEATHER FORECAST FOR FEBRUARY

1st to 3rd—Wet squalls along the Pacific slope and in the Missouri River valley. Heavy snows in the Ohio River area and Great Lakes region. Clearing in the southern states.

4th to 7th—Generally fair and mild over states of southwest from New Mexico eastward to Mississippi. Clear, mild in Gulf states and windy along south Atlantic coast. Stormy in the northwest the first of week.

8th to 11th—Stormy and unsettled in many sections with heavy snows and blizzards in the Rocky Mountain regions and the northwest. Heavy snows and generally stormy in New England.

12th to 15th—Changeable weather as skies become overcast and blustery winds develop in Missouri River valley and eastward to the Great Lakes. Showers in Oregon and Washington. Pleasant in east up to first of the week.

16th to 19th—Clearing and colder in the upper Mississippi valley and on the northern plains. Cold winds with freezing temperatures in the southeast, reaching Florida and the Gulf states.

20th to 23rd—Snow storms in Great Lakes area and along Ohio River. Rains in California and north along Pacific coast. Deep snows in Rocky Mountains and over northern plains. Blustery weather in Arizona and New Mexico.

24th to 28th—Fair, cold in eastern states with heavy frosts in south. Pleasant in New England and along Great Lakes. Cold, blustery northwest winds on southern plains and Rocky Mountain area. Fine winter weather in lower Mississippi valley.

## PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 3. 4. 5. 6. 10. 11. 14. 15. 18. 19. 22. 23. 24



to increased beef eating and decreased use of hog lard. But this is not enough to explain the present discrepancy.

Another barometer to watch is the size of the corn crop. The bigger the corn crop the higher feeder cattle prices are in relation to fat cattle. On the other hand, a light corn crop, by restricting the number of cattle fattened in feed lots, increases the spread between prices of fat cattle and feeder cattle. This influence is usually felt most in the year after the crop has been harvested. The effect of a big corn crop is to narrow the price differentials between all grades of cattle, from choice to common.

A manufacturer of cotton goods gave this advice to his son who was taking over the management of the business: "Remember, we're in the manufacturing business, not buying and selling cotton for profit. We know the manufacturing business and we don't know the cotton brokerage business. So, I advise you to resist all temptations to buy large inventories of cotton, expecting to make money on a hunch that the price is going up."

This counsel applies as well to farmers. Stick to farming and don't speculate in livestock or anything else. Buying and selling livestock is the livestock dealer's business. The farmer's business is raising and feeding livestock. If he sticks to his field and a bad break in prices comes, he may not make any money but neither can he be hurt badly. The belief that they could get rich trading has wrecked more farmers than any other failing.

## *Information Sources*

How can a farmer with a limited time for study and no one to look up the facts for him keep abreast of trends and conditions?

For one thing, he will find it helpful to subscribe for and scan one general business magazine in addition to his farm journals and livestock market papers. Note the general index of business conditions from week to week or month to month. Nation's Business, Business Week, Forbes Magazine, Fortune, and American Business are among the leading magazines in this field. The leading weekly reviews such as Time, News Week, and U.S. News and World Report all have thumb-nail reports on economic trends. It is in business that the big trends start. They may not be felt in agriculture for a while, but often can be seen in the making, through the eyes of shrewd business analysts. Watch also the financial pages of your daily newspaper.

The government bureaus at Washington are a good source of information for farmers to tap. Particularly the Bureau of Agricultural Economics for facts and figures on farm production and prices, the Department of Commerce for data on income and markets, and the Bureau of Labor Statistics for its continuing studies of employment and wages. Write to each of these agencies or to the Superintendent of Documents at Washington for lists of booklets which may be obtained at small expense.

Saunders Norvell, who was one of the country's great business executives, said that no more than 60 per cent of a successful man's knowledge was that relating to his own particular business. The rest is what he has learned about the world in general, including some conception of what the other half does and thinks. To keep reasonably in touch with farm trends calls for considerable awareness of what is going on in the great world around us, and just what part of what is going on is important to farmers.





# Preventive Maintenance

When the work piles up you may not be able to do all these things right on schedule, but it's when your tractor and implements, your car and truck are working the hardest that Preventive Maintenance is most important.

## Daily

Before starting out, check for oil, fuel or water leaks, check oil level and water level, and see that oil



**Check fan belt tension**

pressure and water temperature gauges register normal.

Check fan belt tension, hose condition and tightness of hose clamps, and cleanliness of radiator air passages. Clean fuel filter bowl if dirty—if equipped with drain cocks open them briefly to get rid of any water collected.

Clean off wiring, spark plugs and other parts of ignition system.

Check springs for broken or loose leaves, worn shackles.

Check tires for pressure, for cuts or bruises. Wipe off oil or grease and remove embedded stones.

In dusty areas, daily check of tractor air cleaners may be necessary.

In winter, check the anti-freeze in engine cooling systems.

## Weekly

Clean battery terminals and check connections to see that battery is firmly held in carrier. Add battery water as needed—avoid overfilling.

Check state of charge with hydrometer before adding water. 1.275 to 1.285 reading indicates full charge.\* If in doubt as to actual condition ask

*\* Full charge reading of Mobil "210" Batteries is 1.260. The Mobil "210" Battery (Mobil Premier and Mobil Deluxe) stays stronger, lasts longer, because it has greater resistance to heat, particularly "under-the-hood" heat . . . greater resistance to overcharging . . . more available power throughout its longer life . . . higher starting ability in cold weather.*



# Time Table



your Mobiloil dealer to check the battery with the Mobil Start-o-Scope. Check ammeter to see that generator is charging properly.



*Don't overlook the air cleaner*

Lubricate chassis, clutch release bearing (sparingly), distributor parts, water pump.

Check lubrication of fan.

Check brakes and steering mechanism—adjust if needed.

In track-type tractors, lubricate track bearings (sometimes required daily).

Check lubricant level in transmissions, drive axles and other gear cases.

Inspect all air cleaners, even on stationary engines, and clean and re-oil as needed.

## Monthly

Remove and clean spark plugs and adjust gaps. Bend side electrode only. Use round wire gauge for checking.



*Check gaps carefully*

Check shock absorbers for security of connections and proper action. If possible, check oil level in refillable types. Lubricate springs, if required. Lubricate generator and starting motor bearings—apply *two* or *three* drops of engine oil.

Remove air cleaners and oil and fuel filters for thorough cleaning—renew oil in reservoirs or elements as required.

Clean metal sediment bowls at least monthly; glass bowls whenever dirt or water is noticeable.





# March

## MOON'S PHASES

|      | EASTERN |        | CENTRAL |        | MOUNTAIN |         | PACIFIC |         |
|------|---------|--------|---------|--------|----------|---------|---------|---------|
|      | D.      | H. M.  | D.      | H. M.  | D.       | H. M.   | D.      | H. M.   |
| L.Q. | 8       | 1 26 A | 8       | 0 26 A | 8        | 11 26 M | 8       | 10 26 M |
| N.M. | 15      | 6 05 M | 15      | 5 05 M | 15       | 4 05 M  | 15      | 3 05 M  |
| F.Q. | 22      | 3 10 M | 22      | 2 10 M | 22       | 1 10 M  | 22      | 0 10 M  |
| F.M. | 30      | 7 55 M | 30      | 6 55 M | 30       | 5 55 M  | 30      | 4 55 M  |

## LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

## LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

## LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. | D. | HISTORICAL EVENTS |       | Moon Signs | Sun rises | Sun sets | Moon rises | Sun rises | Sun sets | Moon rises | Sun rises | Sun sets | Moon rises |
|----|----|-------------------|-------|------------|-----------|----------|------------|-----------|----------|------------|-----------|----------|------------|
| M. | W. | H. M.             | H. M. |            | H. M.     | H. M.    | H. M.      | H. M.     | H. M.    | H. M.      | H. M.     | H. M.    | H. M.      |

### 9. 2nd Sunday in Lent

Matt. 15

Day's length 11h. 12m. 11h. 15m. 11h. 28m.

|      |                                       |   |           |                    |                |       |
|------|---------------------------------------|---|-----------|--------------------|----------------|-------|
| 1 Su | Hebrew Purim                          | ♈ | 6 37 5 49 | 7 1 12 6 35 5 50   | 7 1 6 29 5 57  | 7 0   |
| 2 Mo | Hebrew Purim. ♀ Gr. Elong. E. 18° 10' | ♈ | 6 35 5 50 | 8 2 12 6 34 5 51   | 8 1 6 28 5 58  | 7 54  |
| 3 Tu | War in Algeria, 1815                  | ♈ | 6 34 5 51 | 9 4 12 6 33 5 52   | 9 2 6 27 5 59  | 8 51  |
| 4 We | ♈ ♉ ♊, ♋ ♌ ♍                          | ♈ | 6 32 5 53 | 10 7 12 6 31 5 54  | 10 4 6 25 6 0  | 9 48  |
| 5 Th | U. S. Coal Strike ended, 1950         | ♈ | 6 30 5 54 | 11 14 11 6 29 5 55 | 11 9 6 24 6 1  | 10 47 |
| 6 Fr | U. S. Fliers bombed Brest, 1943       | ♈ | 6 29 5 55 | morn 11 6 28 5 56  | morn 6 23 6 1  | 11 48 |
| 7 Sa | ♀ brightest                           | ♈ | 6 27 5 57 | 12 21 11 6 26 5 57 | 12 15 6 21 6 2 | morn  |

### 10. 3rd Sunday in Lent

Luke 11

Day's length 11h. 33m. 11h. 33m. 11h. 43m.

|       |                                     |   |           |                   |               |       |
|-------|-------------------------------------|---|-----------|-------------------|---------------|-------|
| 8 Su  | ♈, ♉ stationary                     | ♈ | 6 25 5 58 | 1 25 11 6 25 5 58 | 1 18 6 20 6 3 | 12 49 |
| 9 Mo  | ♈ Gr. Hel. Lat. N.                  | ♈ | 6 24 5 59 | 2 26 11 6 23 5 59 | 2 19 6 19 6 3 | 1 48  |
| 10 Tu | Suicide of Czech Mazaryk, 1948      | ♈ | 6 22 6 0  | 3 19 10 6 21 6 1  | 3 12 6 18 6 4 | 2 43  |
| 11 We | Israel-Trans-Jordan Armistice, 1949 | ♈ | 6 20 6 1  | 4 3 10 6 19 6 2   | 3 57 6 17 6 5 | 3 33  |
| 12 Th | ♈ in ♈                              | ♈ | 6 19 6 2  | 4 39 10 6 18 6 3  | 4 35 6 15 6 6 | 4 16  |
| 13 Fr | Germany annexed Austria, 1938       | ♈ | 6 17 6 4  | 5 10 9 6 16 6 4   | 5 7 6 14 6 6  | 4 55  |
| 14 Sa | ♈ in perigee                        | ♈ | 6 15 6 5  | 5 37 9 6 14 6 5   | 5 36 6 13 6 7 | 5 29  |

### 11. Mid-Lent Sunday

John 6

Day's length 11h. 52m. 11h. 53m. 11h. 56m.

|       |                                 |   |          |                  |                |       |
|-------|---------------------------------|---|----------|------------------|----------------|-------|
| 15 Su | ♈ 15. ♈ ♉                       | ♈ | 6 14 6 6 | sets 9 6 13 6 6  | sets 6 12 6 8  | sets  |
| 16 Mo | Severe Floods in England, 1947  | ♈ | 6 12 6 7 | 8 7 9 6 11 6 7   | 8 5 6 10 6 9   | 7 55  |
| 17 Tu | St. Patrick's Day. ♈ ♉ ♊, ♋ ♌ ♍ | ♈ | 6 10 6 8 | 9 27 8 6 10 6 8  | 9 23 6 9 6 9   | 9 6   |
| 18 We | Inf. ♈ ♉ ♊, ♋ in ♈              | ♈ | 6 8 6 9  | 10 45 8 6 8 6 9  | 10 39 6 8 6 10 | 10 16 |
| 19 Th | ♈ ♉ ♊                           | ♈ | 6 6 6 10 | 11 57 8 6 6 6 10 | 11 49 6 6 6 10 | 11 23 |
| 20 Fr | ♈ enters ♈, Spring begins       | ♈ | 6 5 6 12 | morn 7 6 5 6 11  | morn 6 5 9 11  | morn  |
| 21 Sa | ♀ Gr. Hel. Lat. N.              | ♈ | 6 3 6 13 | 1 1 7 6 3 6 12   | 12 54 6 4 6 12 | 12 24 |

### 12. Passion Sunday

John 8

Day's length 12h. 13m. 12h. 12m. 12h. 11m.

|       |                                  |   |           |                  |                |      |
|-------|----------------------------------|---|-----------|------------------|----------------|------|
| 22 Su | ♈ 22. ♈ Gr. Hel. Lat. N.,        | ♈ | 6 1 6 14  | 1 57 7 6 1 6 13  | 1 50 6 2 6 13  | 1 20 |
| 23 Mo | ♈ ♉ ♊ [♈ stationary]             | ♈ | 6 0 6 15  | 2 41 7 6 0 6 14  | 2 34 6 0 6 14  | 2 7  |
| 24 Tu | Work on N.Y. Subway began, 1900  | ♈ | 5 58 6 16 | 3 17 6 5 58 6 15 | 3 11 5 59 6 14 | 2 48 |
| 25 We | Annunciation (Lady Day), ♈ in ♈  | ♈ | 5 56 6 17 | 3 50 6 5 57 6 16 | 3 41 5 58 6 15 | 3 22 |
| 26 Th | Embargo Act passed, 1799         | ♈ | 5 54 6 18 | 4 10 6 5 55 6 17 | 4 7 5 57 6 16  | 3 52 |
| 27 Fr | ♈ in apogee                      | ♈ | 5 52 6 20 | 4 31 5 5 53 6 19 | 4 28 5 56 6 16 | 4 20 |
| 28 Sa | Bloody Easter in Palestine, 1948 | ♈ | 5 51 6 21 | 4 50 5 5 52 6 20 | 4 49 5 55 6 17 | 4 46 |

### 13. Palm Sunday

Matt. 27

Day's length 12h. 33m. 12h. 31m. 12h. 25m.

|       |                                   |   |           |                   |                 |       |
|-------|-----------------------------------|---|-----------|-------------------|-----------------|-------|
| 29 Su | First Settlem't in Delaware, 1638 | ♈ | 5 49 6 22 | 5 9 5 5 50 6 21   | 5 9 5 53 6 18   | 5 11  |
| 30 Mo | ♈ 30. ♈ stationary                | ♈ | 5 47 6 23 | rises 4 5 48 6 22 | rises 5 52 6 18 | rises |
| 31 Tu | 1st Day of Passover (Heb.) ♈ ♉ ♊  | ♈ | 5 46 6 24 | 8 0 4 5 46 6 23   | 7 57 5 50 6 19  | 7 42  |

## WEATHER FORECAST FOR MARCH

1st to 3rd—Unsettled with little rain at most points in the southern and middle eastern sections. Colder in the states of the northwest. Chilly winds in New England and the Great Lakes area. Showers in California.

4th to 7th—Clear and mild in the northwest and south along the Atlantic coast. Scattered showers in the southwestern states and in the lower Mississippi valley. Cold rains in Oregon and Washington.

8th to 11th—Heavy rains in the southeastern states and west along the Gulf. Local snows and rains in central and western sections. Cold winds on the Great Lakes and snow squalls in New England.

12th to 15th—Changeable, rainy in southwestern states and disagreeable weather with wind, sleet or rain over central plains. Fierce gales along north Atlantic coast. Blustery squalls in upper Mississippi and Missouri River valleys.

16th to 19th—Fair and colder in the northeast sections and Ohio River valley with little snow. Blustery and unsettled in the southwest and along the California coast. Clear and cool in the southeast.

20th to 23rd—Stormy in the northwest with gales along the Oregon and Washington coast. Rains in the southeastern states and lower Mississippi valley. Sleet and snow in the northeast.

24th to 27th—Unsettled and blustery in most sections of the middle west with rains in the south and sleet or snow in the north. Clear and cold in New England. Warm and sunny in the lower Atlantic states.

28th to 31st—Snow flurries and windy in the northeast with showers further south. Clear and cool in the northwest and snow flurries on the northern plateau. Fair and warmer in the southwest.

## PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 2, 3, 4, 5, 6, 9, 10, 13, 14, 17, 18, 22, 23, 29, 30, 31.

Do not plant on 1, 7, 8, 11, 12, 15, 16, 19, 20, 21, 24, 25, 26, 27, 28.



## Preventive Maintenance Time Table (*Continued*)

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### Semi-Annually

Drain, flush where possible, and refill all gear cases with proper type and grade of gear lubricant for protection and easy shifting.

Drain and flush cooling system. Renew soft or swollen hose; check



**Gear care pays off**

thermostat. In fall, add sufficient anti-freeze to assure full cold weather protection.

In vehicles needed for cold weather, see that batteries are fully charged for quick starts. If storing, keep batteries fully charged, in a cool, dry place. When taken out of storage, check batteries for condition and state of charge.

Rotate car and truck tires every 5000 to 6000 miles to equalize wear.

In fall, check liquid-filled tractor tires for protection against freezing.

Remove wheels; check wheel bearings and grease retainers; clean and repack with new lubricant.

Check brakes and clutches for adjustment and wear, clean and lubricate parts. Reline if required.

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### Annually (And General Maintenance Tips)



**Protect against corrosion**

Repair or replace defective or worn parts. Clean rusted parts, paint, or otherwise protect against corrosion.

Renew spark plugs and ignition wires if required. Check distributor, breaker points, ignition coil, and battery.

Have magneto, carburetor, or diesel injection pumps overhauled.

Check power take-offs, pulleys, winches, chains and other equipment for lubrication, repair or replacement.

Follow manufacturer's instructions in servicing filters on automotive-type diesel engines.

Switch tractor tires from side to side every two years.



# Keeping Books



Agriculture has long since outgrown the stage when a farmer kept his records in a shoebox full of assorted bills and receipts. Adequate and accurate bookkeeping is just as necessary for a farmer as for a merchant, although it can be simpler.

A farmer keeps books in order:

- (A) To determine the amount of his profit or loss,
- (B) To enable him to report his taxable income correctly,
- (C) To show which operations or projects are paying and which are losing,
- (D) To provide a check on costs, so that by analysis he may be able to keep costs down,
- (E) To serve as a guide to farm financing: the money needed, the security available, and the means and manner of meeting obligations.

Three major records are essential to any adequate system of farm bookkeeping.

(1) First is an accurate day-to-day record of Cash Receipts and Disbursements. This is best kept on one of the multi-column farm record books such as are obtainable from your county agent or state agricultural college. Each cash receipt or payment is entered in the

appropriate column. Totals are summarized at the end of the year.

It is good practice to make your entries every day as the transactions occur. Pay bills by check wherever possible, number the checks, and post in your books by check numbers. If, as is so often the case, some of your checks are written at your desk from a large check book and others are written outside from a pocket check book, each check book can be numbered in a separate series.

File your original invoices and bills in one place, by year, your original sale bills on products sold in another place, and your cancelled checks in still another file. Keep these files for at least five years.

To get the most out of this cash journal analyze it briefly every month by comparing the totals in each category with those for the preceding month and for the corresponding month of the preceding year. Then at the end of the year study the summary and compare the annual figures with those of previous years, looking for expenditures that may be out of line. If you see that income is running short you may be able to trim expenses accordingly.

(2) A second farm record is a simple Projects Book ruled in ledger form, with two dollars and cents columns for receipts



and expenditures. The purpose of this record is to break down receipts and expenses by principal operations or projects. It is desirable, for instance, to know whether or not your hogs are profitable, or how much of your profits should be credited to the hog project. No regular system of books automatically shows where the profit or loss came from, but only that the overall profit or loss was so much. So you keep this Projects Book to guide you as to what is most profitable to produce.

You set aside a page for hogs, another for dairying, another for sheep, another for poultry, one for each cash crop, etc. For each account, (the hog account for example), set down on the left hand or debit side every item of cost chargeable to hogs, including the cost of feed grown on the farm and consumed by them. Price the feed at market prices, adding

grinding and mixing expenses. Charge to that account any hired labor expense or portion thereof that directly relates to the hog project. Similarly, credit to the hog account any sales of hogs or pork products.

Periodically, the columns in each project account are added up, ruled and balanced. If there is an excess of credits over debits, put the balance down in black as a profit. If the debits exceed the credits, write the balance in red to indicate a loss.

These balances are the approximate profits and losses by projects or operations. We say approximate because the only way you could make such figures precisely correct would be to charge each project with its proportionate share of what the accountants call "overhead"—that is, interest, taxes, insurance, depreciations, maintenance, etc. To do that properly would call for a cost survey





# Example

## Net Worth Statement of Operator

| ASSETS                           | END OF<br>YEAR 1951 | END OF<br>YEAR 1952 |
|----------------------------------|---------------------|---------------------|
| Land & Improvements.....         | \$37,750            | \$37,475            |
| Crop Machinery.....              | 3,300               | 3,080               |
| General Livestock Equip.....     | 550                 | 495                 |
| Dairy Equipment.....             | ...                 | ...                 |
| Special Equipment.....           | ...                 | ...                 |
| Tractors, Trucks & Autos.....    | 3,000               | 2,625               |
| Work Stock.....                  | ...                 | ...                 |
| Household & Personal.....        | 1,800               | 1,620               |
| TOTAL NON-LIQUID ASSETS.....     | 46,400              | 45,295              |
| Beef Cattle.....                 | \$ 3,750            | \$ 4,250            |
| Dairy Cattle.....                | ...                 | ...                 |
| Hogs.....                        | 1,500               | 2,650               |
| Sheep or Goats.....              | ...                 | ...                 |
| Poultry.....                     | 275                 | 210                 |
| Bees.....                        | ...                 | ...                 |
| Feed.....                        | 2,600               | 2,795               |
| Seed & Supplies.....             | 210                 | 465                 |
| Cash, Receivables, etc.....      | 1,875               | 2,755               |
| TOTAL LIQUID ASSETS.....         | 10,210              | 12,125              |
| TOTAL ASSETS.....                | \$56,610            | \$57,420            |
| LIABILITIES                      |                     |                     |
| Real Estate Mortgages.....       | \$12,000            | \$10,400            |
| Chattel Mortgages & Notes.....   | 500                 | ...                 |
| Accounts Payable.....            | ...                 | 210                 |
| TOTAL LIABILITIES.....           | 12,500              | 10,610              |
| NET WORTH.....                   | \$44,110            | \$46,810            |
| Net Worth of Previous Year.....  | 42,450              | 44,110              |
| NET GAIN - LOSS DURING YEAR..... | \$ 1,660            | \$ 2,700            |

which few farmers would find practicable.

We need merely to remember that all project accounts reveal somewhat more profit—or less loss—than the projects actually earned since if we add up profit figures by projects they would in the aggregate exceed the total for the whole farm, as shown by the Net Worth Statement, to be explained shortly. But such a record is a helpful guide and should be kept if you want to know from what activities your profits or losses are coming.

(3) The third record is an Annual Inventory and Net Worth Statement. Most farm account books have pages ruled for inventories with the principal items printed on the forms, so that it is necessary only to write in the amounts and total them. There are parallel columns for several successive years, which gives a continuous history of each machine, building, and breeding animal, for valuation and depreciation.

The equipment inventory and the



breeding stock inventory as well should show the age of each item and its depreciated value according to the depreciation schedule given in the section on Income Taxes. Purchased feed and supplies should be inventoried at cost, and feed produced on the farm at market price, less cost of marketing.

When in doubt about how to inventory an asset, a good rule to follow is that practiced by business—"cost or market value, whichever is lower." Lean backward to be conservative in order that your records may never deceive you into believing you are better off than you are. If you paid \$10,000 for your farm and you have refused an offer of \$15,000 for it, don't inventory the farm at \$15,000. Put it down at \$10,000, plus the cost of capital improvements made since you bought it, less depreciation accrued on all improvements.

There is also an inventory of liabilities, or debts owed.

The Net Worth Statement is simply a summary of the inventory by asset groups and liability groups. Assets are divided broadly into liquid and nonliquid, or fixed assets. The liquid assets include such things as livestock, feed, seed and supplies, cash and receivables. Fixed assets include land and improvements, implements, work stock, etc.

Total assets less total liabilities equal net worth. Net worth as of December 31, 1952 subtracted from Net worth as of December 31, 1953 gives the net profit for the year 1953.

Referring now to the objects of keeping books, as outlined at the beginning, we see that the record of Cash Receipts and Disbursements is used first of all for income tax reporting. The classification of income and expense accounts should correspond essentially with that which the Internal Revenue people prescribe

for reporting tax returns. Secondary uses of this record are to provide a measure for checking current costs and to serve as a guide for farm financing.

The Projects Book shows which farm operations are profitable and which are not profitable.

The Annual Inventory and Net Worth Statement show the total profit or loss. It is the only known practical way by which a farmer can be sure how much he is making or losing.

There are certain subsidiary records that are optional but in many cases do provide useful information. One is a record of crops raised, showing yields and values. A record of calves, lambs, pigs and colts born on the farm is helpful. And in the case of dairy cows a breeding record is an essential. Many of the more progressive dairy farmers keep records of the milk and butter fat production of each individual cow.

Most farm record books have pages for recording household and personal expenses. Such a record is desirable as a guide in controlling the expenses that make up a family budget. It is next to impossible to separate completely non-farm expenses from accounting items dealing with farming business proper, but the nearer an approach can be made to that ideal the better. It involves many fine points. The family automobile, for instance, is in part a tool for farm business. The Internal Revenue bureau recognizes this by allowing that part of passenger auto expense incurred by farm business as a deductible expense. That being the case, repairs to the garage that houses the car would be a farming (business) expense in the same proportion.

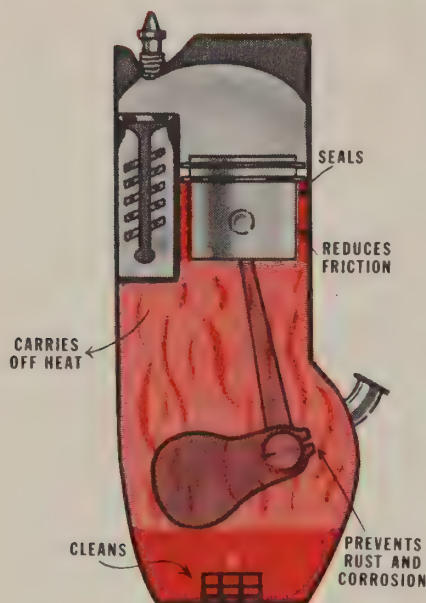
Good bookkeeping takes time and effort but the dividend from it is worth while in the assurance of "no breakers ahead" that it provides.





# Correct Lubrication—

## MOST IMPORTANT STEP IN PREVENTIVE MAINTENANCE



*Lubricants, depending on the point of use, may be called on to perform five tasks, sometimes at the same time. They may be required to (1) reduce friction, (2) cool, (3) seal, (4) clean and (5) protect against rust or corrosion. The first function is well known, but the other four are less widely understood.*

### 1. Lubricants Reduce Friction

Friction is reduced by keeping moving parts separated with the proper lubricant so that there is no metal-to-metal contact. One of the most important qualities of an oil, therefore, is that of proper body or “viscosity” for the operating temperature range involved. The correct viscosity helps maintain an effective film between the rubbing surfaces. If the oil is too thick, hard starting, excessive drag and power loss result. If the oil thins out too much as the machine warms up, the lubricant may be unable to separate moving parts properly.

### 2. Lubricants Cool

Heat produced in bearings (some friction is always present) and in engines (as a result of burning fuel) is carried off in part by lubricants, and dissipated finally by radiation to the atmosphere, or by cooling the oil in some form of cooler.

### 3. Lubricants Seal

Piston sealing provided by the lubricant in an engine helps increase efficiency and power output. Without sealing action, cylinder blowby would result in fuel and

oil waste, dilution and deterioration of the oil, and poor engine performance. Greases not only lubricate, but should seal the bearings against entrance of dirt, water and other contaminants.

### 4. Lubricants Clean

In engines, the oils help carry solid contaminants such as carbon, grit, and metallic-wear particles to the filter or crankcase where they become relatively harmless. Many high-quality engine oils also contain detergents, which hold soot and deterioration products in suspension, in which condition they can be drained away easily when the crankcase oil is changed.

### 5. Lubricants Protect Against Corrosion

Top-quality engine oils are highly resistant to oxidation. This is important from the corrosion standpoint, because many oil-oxidation products are of an acid nature. Some lubricants, both oils and greases, possess good natural properties that protect against rusting and corrosive attack generally, often important causes of serious engine wear. Others can be so manufactured.



# Why and When Engine Oil Should Be Changed



The engine—truck, tractor, car or stationary—is the heart of modern mechanized farming and farm living. And, what the power unit is to the farmer, oil is to the engine. Internal combustion engines simply won't run without it.

Today, engines are smaller, and yet more powerful. Compression ratios, speeds and temperatures are higher. Parts fit closer and oil films are thinner. The increased heat and faster churning action in the crankcase have a destructive tendency on oil, and only a high quality engine oil with the right built-in performance properties can resist these adverse conditions for very long.

## Why Change Oil?

Even the finest oil will eventually become contaminated. Fuel combustion, oxidation and other inevitable processes result in carbon, "varnish," sludge, dilution, water, acids and soot. Sand, dirt, and dust are carried into the engine from outside, and tiny bits of metal from normal wear also get into the oil.

Good oil is refined and treated especially to combat these harmful factors, and oil filters and air cleaners add their protection. But, the only way to really get rid of used oil and all the contaminants

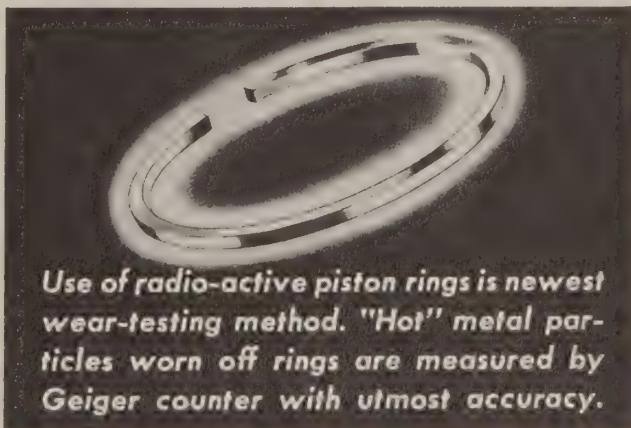
it picks up is to **DRAIN IT OUT AND REFILL** the crankcase with fresh, clean oil—on a regular schedule, according to *usage* and *operating conditions*. Don't let anyone tell you differently.

## When to Change

The best thing to do, and the cheapest and safest in the long run, is to follow the oil-change intervals recommended in your operator's or owner's manual, or better yet, consult with your regular Mobiloil man. He knows your particular operating problems and has the experience to advise you wisely. And between changes, of course, the oil level should be maintained at a safe level.

Drain when engine and oil are hot, so the used oil will carry the dirt out with it. Service the air cleaners while you're at it and check on the oil filter condition. It's always a good idea to establish a regular service interval on the filter at the same time you set up the crankcase drain-and-refill schedule.

**World-Famous Mobiloil** is made from selected crudes, solvent refined and dewaxed, and filtered to remove all unwanted elements. It resists oxidation and has the detergent-dispersant qualities that minimize lacquer, sludge and carbon formation in the engine. Mobiloil has outstanding heavy duty performance characteristics and greater wear-reduction abilities than ever before, *especially under conditions of low engine temperature where corrosive wear can be serious*. It gives outstanding satisfaction in car, truck, tractor and farm engines when applied as recommended in the Mobiloil Chart of Recommendations.





# Gear Lubrication



Gears are the vital connecting links between power and production. They demand regular care and protection to avoid breakdowns and loss of time. Anything that keeps a tractor on the job is worthwhile, and proper gear lubrication represents less than 3% of total tractor operating cost.

The combination rolling and sliding action between gear tooth surfaces can be simply demonstrated: Press your thumb on a table—you feel pressure. Roll the thumb—still you note pressure, but nothing else. Now, sweep your thumb quickly and lightly along the table—you note some friction and heat. Next, bear down and try it again—fast and hard—but this

time look out for a blister on your thumb.

And so with gears—rolling action alone would present no serious lubrication problem, nor would sliding, at moderate velocities. But as sliding velocity and pressure increase, lubrication requirements reach the point where mineral oil is unsatisfactory as a lubricant. When this occurs, the heat generated is so great that the surfaces in contact weld together; further gear movement tears them apart, causing scoring. The lubricant used under such conditions must contain compounds which form a protective coating on the teeth and prevent welding. Such oils are known as “extreme pressure” or “hypoid” lubricants.



## WHY Gear Lubricants Should Be Changed

Farm equipment works in dusty surroundings, and some dirt and grit will always enter the gear cases to scratch bearing surfaces and score gear teeth. Moisture accumulations further contaminate the lubricant. Therefore, to maintain full-time operation and avoid costly repairs, the dirty lubricant must be drained and replaced with fresh before damage can occur. Follow your Mobiloil man's advice carefully, but in any case make sure to change gear lubricants seasonally—spring and fall.

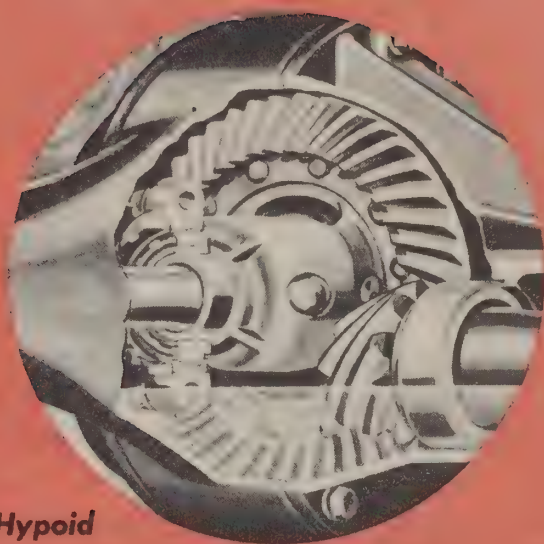
## Check, Drain, Flush and Refill Gear Cases

Check frequently for proper level and add gear lubricant as necessary. When checking or replenishing, wipe dirt away from openings and take special care to prevent foreign material from getting into the gear case.

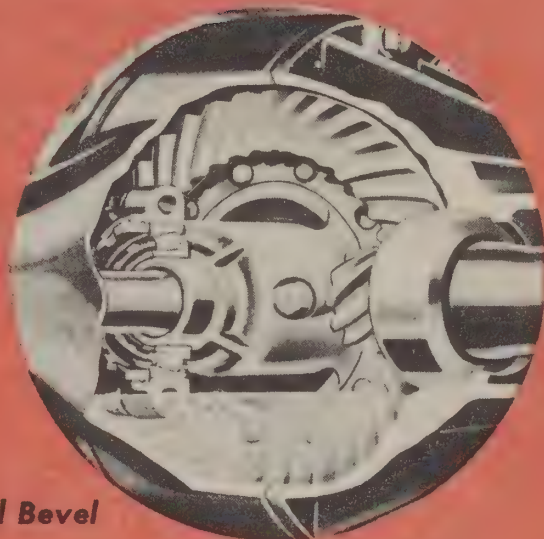
Fluid gear lubricants should be drained when hot, as after continued hard working, to speed up flow to the outlet and assure maximum drainage. After draining, most gear cases should be flushed, using a good flushing oil or kerosene. Be sure all flushing oil is out before refilling with fresh gear oil. Where hypoid lubricants have been used, gear teeth will rust very quickly if completely cleaned of lubricant. In such cases, clean only with light engine oil or high-grade flushing oil. Also, avoid the slightest movement of hypoid gears under pressure when dry, as scoring will occur.

Flushing is not recommended where the gear case design makes complete removal of the flushing oil impossible, which would lead to dangerous dilution of the fresh lubricant.

Remember, farm equipment gears, open or enclosed, work in dust and grit all the time. It pays to drain them *regularly* to get the dirt out, and refill with fresh, clean Mobilube gear lubricants of the correct types and grades for your equipment. There's no economy in *saving* oil and *losing* valuable gears.



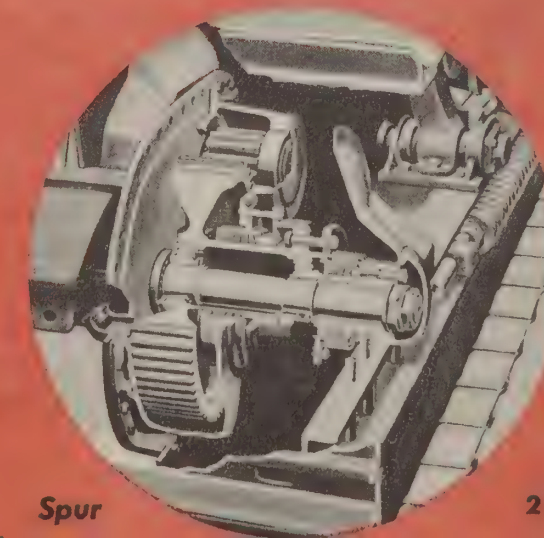
*Hypoid*



*Spiral Bevel*



*Helical*



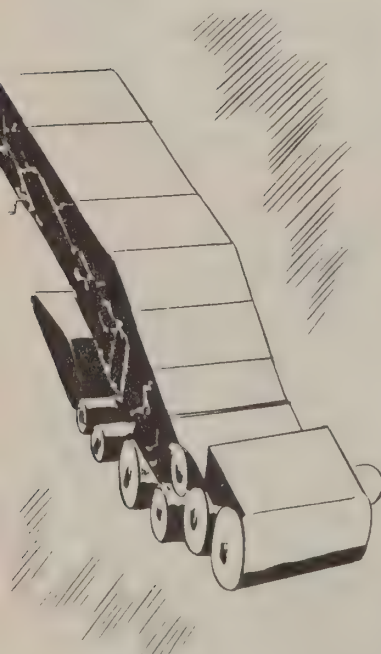
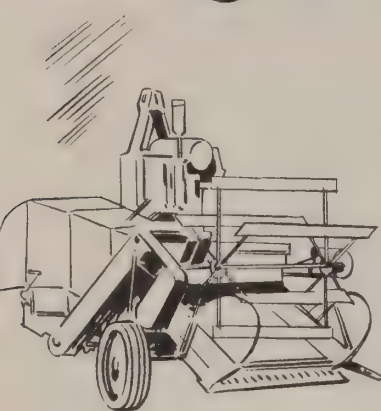
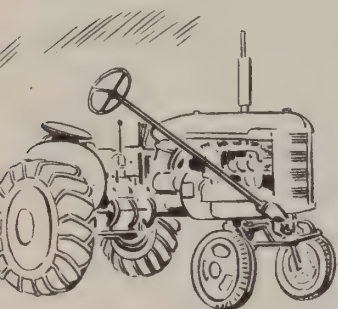
*Spur*



# Quality Lubricants for

Aside from land, buildings and livestock, the bulk of a farmer's money is invested in machines. And on this machinery depends his livelihood—whether he makes a profit, breaks even, or goes in the hole.

Some machines and parts of machines require more care than others, depending on what they have to do—the speeds, temperatures and pressures under which they operate—and to what extent they are exposed to dirt, dust and water. Proper maintenance of farm machinery is a matter of regular attention to repairs, adjustment and the right kind and amount of lubrication. It is the job of your Mobiloil man to recommend and provide the Correct Lubricants, which will protect your investment and help keep farm machines working at full capacity.



## ENGINE OILS

**MOBIL OIL — Arctic Special (SAE 10W) — Arctic (SAE 20-20W) — A (SAE 30) — AF (SAE 40) — BB (SAE 50) — 5W (SAE 5W) (this grade available where continuous sub-zero conditions are common in winter.)**

Improved, superior quality, heavy-duty engine oils that fully meet requirements of both Diesel and carburetor-type engines in all types of service. These oils have high VI, are anti-acid, unusually resistant to heat and oxidation, and possess special detergent-dispersant properties that keep engine parts freer than ever before from deposits that waste power, fuel and oil.

They provide exceptional protection against corrosive wear, especially that occurring on piston rings and cylinder walls as a result of low engine temperatures. This is common in winter, but also accompanies start-stop driving, excessive idling and engine warm-up generally.

Under the American Petroleum Institute System of Service Classifications governing the choice of oils for engines, Mobil oil is suitable for gasoline engines for all three types of service. . . . "ML", "MM", and "MS", and for Diesel engines, for service "DG".

## REGULAR TYPE GEAR OILS

**MOBILUBE — C80 (SAE 80-20) — C90 (SAE 90-50) — C140 (SAE 140)**

Highly refined mineral gear oils for transmissions, drive axles and other gear assemblies, except for hypoid gears, automatic transmissions, or other applications where extreme pressure type or other special lubricants are required. They are unusually stable, resist thickening and excessive foaming, and are non-abrasive, non-corrosive, and protect against rusting. They circulate promptly and give full, economical protection and easy gear shifting.



# Every Farm Machine

## MULTI-PURPOSE TYPE GEAR OILS

**MOBILUBE — GX 80 (SAE 80) — GX 90 (SAE 90) — GX 140 (SAE 140)**

Highest quality, exceptionally stable mineral oils with special ingredients added to provide extreme pressure properties. Superior multi-purpose lubricants designed for use in hypoid and other types of axles, conventional transmissions and overdrives. (Not for automatic transmissions.)

## GREASES

**MOBILGREASE NO. 2**

First modern chassis grease ever developed, and still superior in its field. Medium-bodied and viscous, but easily applied through pressure fittings. Forms safe, dust-proof seal at ends of bearing—stays put under heavy pressures, under high temperatures, under washing action of water. It is also recommended for some track roller applications.

**MOBILGREASE NO. 5**

For wheel bearings and grease-type universal joints. Approved by Timken Roller Bearing Company for wheel-bearing use. Also recommended for most grease cup applications. Mobilgrease No. 5 is a medium bodied fibrous grease—specially made to resist separation, thinning and leakage under centrifugal action, high temperatures and severe pressures.

**MOBILGREASE NO. 6**

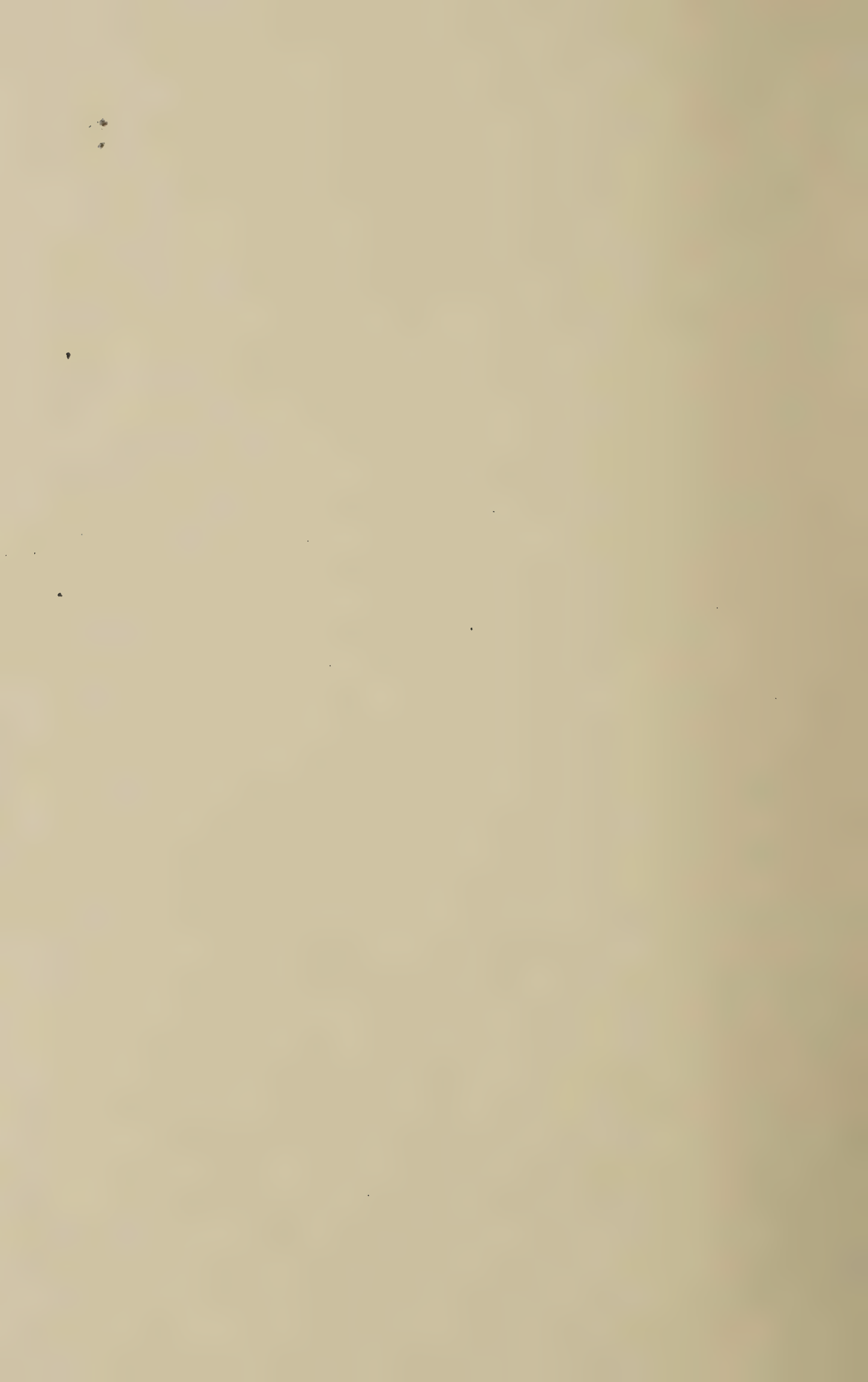
A smooth, medium-hard waterproof grease recommended for some types of engine water pumps and for stuffing boxes generally. Does not dissolve in hot or cold water or anti-freeze; floats and passes out of radiator overflow if supplied in excess.

**MOBILGREASE MP**

A new special multi-purpose automotive grease giving outstanding performance in wheel bearings, water pumps, chassis fittings, grease cups and grease-type universal joints.

*In addition to the Mobilgreases described here, there are other members of the famous Mobilgrease line, each specially compounded for specific types of applications, from cold-weather chassis lubrication to cold-weather lubrication of grease-lubricated track rollers, bogie wheels and idler bearings of crawler-type tractors*







# The Oil that Helped the First Plane Fly!

Here are only a few of the many history-making events in which Mobiloil has played an important part. For half a century, pace setters on land, sea and in the air have depended on this famous motor oil for the finest lubrication protection.

Today, Mobiloil is better than ever. Scientific tests with radio-active tracers prove that heavy-duty Mobiloil with new super-detergent formula can materially stretch engine life, help improve oil economy.

It is continual improvement like this that makes Mobiloil the world's largest-selling motor oil.



Wright Flies 62 Minutes 15 Seconds



Barney Oldfield Sets New Record



No other oil in the world can match this 50-Year Record!

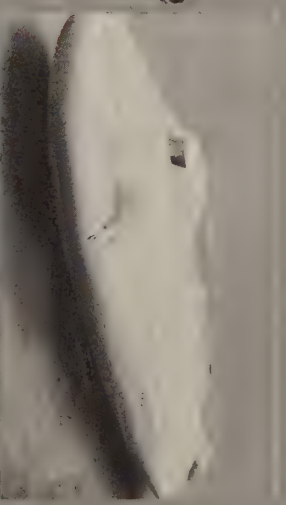
# Mobiloil



Lindbergh First to Fly Atlantic



Indianapolis Winners Use Mobiloil



Cobb Sets New Auto Speed Record



Harmsworth Trophy Won with Mobiloil

**FOR 50 YEARS—THE GREATEST NAME IN MOTOR OIL!**



# *Farm Financing*



One of the sharpest lines of distinction between successful and unsuccessful farmers is in their capacity for looking ahead. The forehanded one anticipates his problem and has a solution in mind—better still, two or three solutions—before the problem hits him. The unsuccessful, “hand-to-mouth” farmer is taken unawares, improvises at the last minute, and is often unequal to the occasion.

Some men can see ahead for a number of years; others do well to glimpse what next week will look like. One farmer who is now a large operator said he had never thought of his operations in terms of one year’s results. The rewards aren’t passed out on any such basis, he said, any more than a ball club can play one game and win or lose a pennant. Neither a ball club or a farmer has to accept that big a chance. Opportunity pays off on averages, and that’s why this man thinks in terms

of what he accomplishes over ten-year periods. That is the only way to beat the uncertainties of weather and markets. It takes part of the gamble out of farming.

Apply this thought to the financing of farm loans. The most careful students of trends say they expect farm commodity prices to be lower in the years ahead. Therefore, they recommend that farmers who are carrying debts try to get their farms financed on a long-time basis, with low required interest and principal payments. To plan ahead on the expectation of continued 1946-52 incomes is to invite trouble.

In laying financial plans, an important question to decide is, “How much can I expect to pay out of my earnings for interest and principal on my farm loan?” While each farm is different from others in respect to its expected earning capacity, they are all alike in one respect. The



## Estimated Production and Income from a Typical 160-Acre Corn Belt Farm

| Crop                            | Acreage | Aver. Yield<br>Per Acre | Total Yield | 20-Yr. Aver.<br>Price Per Bu. | Income     |
|---------------------------------|---------|-------------------------|-------------|-------------------------------|------------|
| Corn                            | 40a     | 38 bu.                  | 1,520 bu.   | \$1.10                        | \$1,672.00 |
| Oats                            | 20a     | 26 "                    | 520 "       | .62                           | 322.40     |
| Wheat                           | 20a     | 18 "                    | 360 "       | 1.48                          | 532.80     |
| Alf. Hay                        | 20a     | 1.57 tons               | 31.4 "      | 16.31 per ton                 | 512.13     |
| Total average gross crop income |         |                         |             |                               | \$3,039.33 |

### Other Crop Yields and Prices — 20 Year Average

|                   |                |                       |
|-------------------|----------------|-----------------------|
| Soybeans          | \$1.86 per bu. | Yield 15.1 bu. per A. |
| Cotton            | .22 " lb.      | 446 lb. per A.        |
| Barley            | .96 " bu.      |                       |
| Rye               | 1.19 " "       |                       |
| Grain sorghum     | 1.82 " cwt.    |                       |
| Potatoes          | .92 " bu.      |                       |
| Red clover seed   | 16.60 " "      |                       |
| Sweet clover seed | 6.38 " "       |                       |
| Timothy seed      | 3.07 " "       |                       |
| Milk, wholesale   | 2.74 " cwt.    |                       |
| Butter fat        | .43 " lb.      |                       |
| Wool              | .37 " "        |                       |



answer to this question in *all* cases is to be found by estimating average earnings over a long period. They will depend on two variable factors—yields and prices. But both may be estimated on a long-time average with a fair degree of accuracy.

Earnings will depend on a further factor that is not a variable, except as life itself is uncertain. That is management. It conditions the plan importantly.

By way of illustration, let's take the case of a typical 160-acre corn belt farm. We want to estimate conservatively what the land itself is capable of returning, granted that it is under reasonably efficient management. The accompanying table breaks down the estimate by crops, yields, and income. We have taken only the value of the crops. In general practice part or all of the crops would be fed to livestock and thus marketed in the form of livestock and livestock products. That

should return more than the cash value of the crops, but we are basing the estimate on crops only, as a conservative minimum average for the past 20 years.

Now, the problem here is to calculate how much of a long-term debt the owner of this farm can safely carry without measurable risk of defaulting. We must allow for the fact that he can't pay out all, or even most, of his gross earnings on debt retirement. He must have money to live on, and enough circulating capital to keep operating. At times, for instance, he will have to buy fertilizer and other supplies in advance of the time they are to be used, in order to be sure of getting what he needs and to take advantage of fluctuating prices. He must, in other words, have a working margin of ready cash.

Speaking generally, about two-thirds of the farm's income should suffice for living and current operating needs, leav-





## LATITUDE

Plant on 1, 2, 5, 6, 7, 10, 11, 14, 15, 18, 19, 25, 26, 27, 28, 29.  
Do not plant on 3, 4, 8, 9, 12, 13, 16, 17, 20, 21, 22, 23, 24, 30.



## Farm Financing (Continued)

ing one-third for debt retirement, maintenance, insurance and taxes. Those managers who do a better than average job of management will be able to earmark a larger proportion for debt reduction.

Applying this estimate to the typical farm cited in the table, we find that one-third of the crop income amounts to \$1,013.11. But we still have to consider the 60 acres of pasture, which is worth an uncertain amount. For our purpose here it is advisable to credit it only with what pasture might in the ordinary course be rented for in the community. If we estimate conservatively that the 60 acres would accommodate 20 head of cattle, and that pasture for 20 head of cattle could be rented at \$5 a head for a season, this adds \$100 to the portion of average gross income set aside for loan principal, interest, depreciation, insurance, and taxes.

To arrive at the debt retirement capacity alone, we must take from this figure all the other fixed costs, as follows:

|                                                                              |          |
|------------------------------------------------------------------------------|----------|
| Estimated taxes on farm....                                                  | \$160.00 |
| Maintenance and insurance on improvements (2% on cost of, say \$10,000)..... | 200.00   |
|                                                                              | <hr/>    |
|                                                                              | \$360.00 |

This leaves for interest and principal payments..... \$753.11

Therefore, this farmer can afford to borrow money of such amount that it can be carried by total average annual payments of up to \$753.11 a year. His farm income, conservatively estimated, should be enough to make such a loan a safe transaction for him and for the lender.

This amount annually when budgeted for debt retirement is sufficient to meet principal payments and interest at 5 per cent on a loan of \$9,390.00 to run for 20 years. The reducing balance occasioned by regular yearly payments means that actually the borrower's payments on principal and interest at 5 per cent will





May



MOON'S PHASES

|      | EASTERN |        | CENTRAL |         | MOUNTAIN |         | PACIFIC |         |
|------|---------|--------|---------|---------|----------|---------|---------|---------|
|      | D.      | H. M.  | D.      | H. M.   | D.       | H. M.   | D.      | H. M.   |
| L.Q. | 6       | 7 21 M | 6       | 6 21 M  | 6        | 5 21 M  | 6       | 4 21 M  |
| N.M. | 13      | 0 06 M | 12      | 11 06 A | 12       | 10 06 A | 12      | 9 06 A  |
| F.Q. | 20      | 1 20 A | 20      | 0 20 A  | 20       | 11 20 M | 20      | 10 20 M |
| F.M. | 28      | 0 03 A | 28      | 11 03 M | 28       | 10 03 M | 28      | 9 03 M  |

LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. | M. | W. | HISTORICAL EVENTS  | Moon Signs | Sun |    |    | Moon |    |    | SUN FAST | Sun |    |    | Moon |    |    | SUN FAST | Sun |    |    | Moon |    |    |
|----|----|----|--------------------|------------|-----|----|----|------|----|----|----------|-----|----|----|------|----|----|----------|-----|----|----|------|----|----|
|    |    |    |                    |            | H.  | M. | H. | M.   | H. | M. |          | H.  | M. | H. | M.   | H. | M. |          | H.  | M. | H. | M.   | H. | M. |
| 1  | Fr |    | ♀ stationary       | ♊          | 4   | 56 | 6  | 59   | 10 | 12 |          | 3   | 4  | 59 | 6    | 56 | 10 | 5        | 5   | 14 | 6  | 41   | 9  | 36 |
| 2  | Sa |    | ♀ Gr. Hel. Lat. S. | ♊          | 4   | 55 | 7  | 1    | 11 | 9  |          | 3   | 4  | 58 | 6    | 57 | 11 | 2        | 5   | 13 | 6  | 42   | 10 | 32 |

18. 4th Sunday after Easter John 16 Day's length 14h. 9m. 14h. 2m. 13h. 30m.

|   |    |  |                                     |   |   |    |   |   |      |    |  |   |   |    |   |    |      |    |   |    |   |    |      |    |
|---|----|--|-------------------------------------|---|---|----|---|---|------|----|--|---|---|----|---|----|------|----|---|----|---|----|------|----|
| 3 | Su |  | Inv. of Cross. Hebrew Lag B'Omer    | ♊ | 4 | 53 | 7 | 2 | 11   | 57 |  | 3 | 4 | 56 | 6 | 58 | 11   | 51 | 5 | 12 | 6 | 42 | 11   | 23 |
| 4 | Mo |  | Berlin Blockade Agreement, 1949     | ♊ | 4 | 52 | 7 | 3 | morn |    |  | 3 | 4 | 55 | 6 | 59 | morn |    | 5 | 11 | 6 | 43 | morn |    |
| 5 | Tu |  | ♌ in ♌                              | ♊ | 4 | 50 | 7 | 4 | 12   | 36 |  | 3 | 4 | 54 | 7 | 0  | 12   | 31 | 5 | 10 | 6 | 44 | 12   | 9  |
| 6 | We |  | ♌. Allies capt. Amsterdam, 1945     | ♊ | 4 | 49 | 7 | 5 | 1    | 9  |  | 3 | 4 | 53 | 7 | 1  | 1    | 5  | 5 | 9  | 6 | 45 | 12   | 48 |
| 7 | Th |  | Pan-Europe Congress met, 1948       | ♊ | 4 | 48 | 7 | 6 | 1    | 37 |  | 4 | 4 | 52 | 7 | 2  | 1    | 35 | 5 | 8  | 6 | 45 | 1    | 23 |
| 8 | Fr |  | London City Workers on strike, 1947 | ♊ | 4 | 46 | 7 | 7 | 2    | 2  |  | 4 | 4 | 50 | 7 | 3  | 2    | 1  | 5 | 7  | 6 | 46 | 1    | 57 |
| 9 | Sa |  | ♌ in perigee                        | ♊ | 4 | 45 | 7 | 8 | 2    | 27 |  | 4 | 4 | 49 | 7 | 4  | 2    | 27 | 5 | 6  | 6 | 47 | 2    | 28 |

19. Rogation Sunday John 16 Day's length 14h. 25m. 14h. 18m. 13h. 43m.

|    |    |  |                                      |   |   |    |   |    |      |    |  |   |   |    |   |    |      |    |   |   |   |    |      |    |
|----|----|--|--------------------------------------|---|---|----|---|----|------|----|--|---|---|----|---|----|------|----|---|---|---|----|------|----|
| 10 | Su |  | Mothers' Day. ♀ ♌                    | ♊ | 4 | 44 | 7 | 9  | 2    | 52 |  | 4 | 4 | 48 | 7 | 6  | 2    | 54 | 5 | 5 | 6 | 48 | 3    | 1  |
| 11 | Mo |  | London Foreign Ministers Conf., 1950 | ♊ | 4 | 43 | 7 | 11 | 3    | 20 |  | 4 | 4 | 46 | 7 | 7  | 3    | 23 | 5 | 5 | 6 | 48 | 3    | 36 |
| 12 | Tu |  | ♌. 12. (CST). ♀ ♌                    | ♊ | 4 | 42 | 7 | 12 | 3    | 52 |  | 4 | 4 | 45 | 7 | 8  | 3    | 56 | 5 | 4 | 6 | 49 | 4    | 15 |
| 13 | We |  | ♌. 13. (EST). ♀ ♌                    | ♊ | 4 | 41 | 7 | 13 | sets |    |  | 4 | 4 | 44 | 7 | 9  | sets |    | 5 | 3 | 6 | 49 | sets |    |
| 14 | Th |  | Ascension (Holy) Thursday. ♀ ♌       | ♊ | 4 | 40 | 7 | 14 | 9    | 28 |  | 4 | 4 | 43 | 7 | 10 | 9    | 21 | 5 | 3 | 6 | 50 | 8    | 52 |
| 15 | Fr |  | U. N. President visited Stalin, 1950 | ♊ | 4 | 39 | 7 | 15 | 10   | 24 |  | 4 | 4 | 42 | 7 | 11 | 10   | 17 | 5 | 2 | 6 | 51 | 9    | 49 |
| 16 | Sa |  | Armed Forces Day. ♀ in ♌, ♀ ♌        | ♊ | 4 | 37 | 7 | 16 | 11   | 9  |  | 4 | 4 | 41 | 7 | 12 | 11   | 3  | 5 | 1 | 6 | 52 | 10   | 36 |

20. Sunday after Ascension John 15 Day's length 14h. 41m. 14h. 33m. 13h. 52m.

|    |    |  |                                     |   |   |    |   |    |      |    |  |   |   |    |   |    |      |    |   |    |   |    |      |    |
|----|----|--|-------------------------------------|---|---|----|---|----|------|----|--|---|---|----|---|----|------|----|---|----|---|----|------|----|
| 17 | Su |  | Chinese Reds capture Wuchang, 1949  | ♊ | 4 | 36 | 7 | 17 | 11   | 44 |  | 4 | 4 | 40 | 7 | 13 | 11   | 39 | 5 | 1  | 6 | 53 | 11   | 17 |
| 18 | Mo |  | Peace Day. ♀ in ♌                   | ♊ | 4 | 35 | 7 | 18 | morn |    |  | 4 | 4 | 39 | 7 | 13 | morn |    | 5 | 0  | 6 | 53 | 11   | 52 |
| 19 | Tu |  | ♀ brightest                         | ♊ | 4 | 34 | 7 | 19 | 12   | 13 |  | 4 | 4 | 39 | 7 | 14 | 12   | 9  | 4 | 59 | 6 | 54 | morn |    |
| 20 | We |  | ♌. 20. Hebrew Shebuoth              | ♊ | 4 | 33 | 7 | 20 | 12   | 37 |  | 4 | 4 | 38 | 7 | 15 | 12   | 35 | 4 | 58 | 6 | 55 | 12   | 22 |
| 21 | Th |  | ♀ in apogee, ♀ in ♌, ♀ enters ♌     | ♊ | 4 | 32 | 7 | 21 | 12   | 59 |  | 4 | 4 | 37 | 7 | 16 | 12   | 57 | 4 | 58 | 6 | 56 | 12   | 50 |
| 22 | Fr |  | National Maritime Day               | ♊ | 4 | 31 | 7 | 22 | 1    | 18 |  | 3 | 4 | 36 | 7 | 17 | 1    | 17 | 4 | 57 | 6 | 56 | 1    | 16 |
| 23 | Sa |  | Paris Foreign Ministers Conf., 1949 | ♊ | 4 | 30 | 7 | 23 | 1    | 37 |  | 3 | 4 | 35 | 7 | 18 | 1    | 38 | 4 | 57 | 6 | 57 | 1    | 41 |

21. Whit Sunday—Pentecost John 14 Day's length 14h. 54m. 14h. 44m. 14h. 2m.

|    |    |  |                             |   |   |    |   |    |       |    |  |   |   |    |   |    |       |    |   |    |   |    |       |    |
|----|----|--|-----------------------------|---|---|----|---|----|-------|----|--|---|---|----|---|----|-------|----|---|----|---|----|-------|----|
| 24 | Su |  | Sup. ♀ ♌, ♀ ♌, ♀ ♌          | ♊ | 4 | 30 | 7 | 24 | 1     | 57 |  | 3 | 4 | 35 | 7 | 19 | 1     | 59 | 4 | 56 | 6 | 58 | 2     | 7  |
| 25 | Mo |  | ♌ ♌, ♌ ♌                    | ♊ | 4 | 29 | 7 | 25 | 2     | 20 |  | 3 | 4 | 34 | 7 | 20 | 2     | 24 | 4 | 56 | 6 | 58 | 2     | 36 |
| 26 | Tu |  | ♀ in perihelion             | ♊ | 4 | 29 | 7 | 25 | 2     | 45 |  | 3 | 4 | 34 | 7 | 20 | 2     | 48 | 4 | 55 | 6 | 59 | 3     | 7  |
| 27 | We |  | ♌. Ember Day                | ♊ | 4 | 28 | 7 | 26 | 3     | 16 |  | 3 | 4 | 33 | 7 | 21 | 3     | 21 | 4 | 55 | 6 | 59 | 3     | 45 |
| 28 | Th |  | ♌. 28. Riots in Syria, 1945 | ♊ | 4 | 27 | 7 | 27 | rises |    |  | 3 | 4 | 32 | 7 | 22 | rises |    | 4 | 55 | 7 | 0  | rises |    |
| 29 | Fr |  | Ember Day.                  | ♊ | 4 | 27 | 7 | 28 | 9     | 2  |  | 3 | 4 | 32 | 7 | 23 | 8     | 55 | 4 | 54 | 7 | 0  | 8     | 25 |
| 30 | Sa |  | Memorial Day. Ember Day     | ♊ | 4 | 26 | 7 | 29 | 9     | 54 |  | 3 | 4 | 31 | 7 | 24 | 9     | 47 | 4 | 54 | 7 | 1  | 9     | 20 |

22. Trinity Sunday John 3 Day's length 15h. 4m. 15h. 53m. 14h. 8m.

|    |    |  |     |   |   |    |   |    |    |    |  |   |   |    |   |    |    |    |   |    |   |   |    |   |
|----|----|--|-----|---|---|----|---|----|----|----|--|---|---|----|---|----|----|----|---|----|---|---|----|---|
| 31 | Su |  | ♌ ♌ | ♊ | 4 | 26 | 7 | 30 | 10 | 38 |  | 2 | 4 | 31 | 7 | 24 | 10 | 32 | 4 | 54 | 7 | 2 | 10 | 7 |
|----|----|--|-----|---|---|----|---|----|----|----|--|---|---|----|---|----|----|----|---|----|---|---|----|---|

WEATHER FORECAST FOR MAY

1st to 3rd—Unsettled over central and Great Lakes sections. Thunder storms accompanied by blustery winds in southwest. Rain followed by clear, cool weather in northeast. Wind squalls in New England. Pleasant in the northwest.

4th to 7th—Fair weather with occasional showers in upper Mississippi and Missouri River valleys. Local thunder storms in south Atlantic and Gulf states, sunny and warmer to the north. Brisk westerly winds in California.

8th to 11th—Disagreeable in most sections as higher temperatures prevail. Thunder storms in lower Atlantic states with little rain. Squalls on Pacific coast. Rains in Ohio River valley and Great Lakes. Showers east to Atlantic.

12th to 15th—Stormy conditions and rainy in the lower Mississippi valley and over the central plains. Tornado weather in the southeastern states and wind squalls in the Rockies and westward to the Pacific.

16th to 19th—Lower temperatures over the central and southern sections. Fair and pleasant in states bordering the Great Lakes and north Atlantic coast. Scattered thunder storms in the west.

20th to 23rd—Rain and wind in the northeastern states with heavy fogs along the New England coast. Hot and dry in the southeast. Severe gales and storms in northwestern areas, hot in the southwest.

24th to 27th—Unsettled in northwestern sections. Light rains in Mississippi valley. Changeable, northeast, becoming fair and cooler. Warm and dry in southwest, thunder storms in southern Rockies and plateau.

28th to 31st—Slowly clearing and fair weather in Washington and Oregon, and eastward to the Mississippi valley. Stormy in the Atlantic states up to the first of the week. Hot in the southwest.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 2, 3, 4, 7, 8, 11, 12, 15, 16, 17, 23, 24, 25, 26, 30, 31.  
Do not plant on 1, 5, 6, 9, 10, 13, 14, 18, 19, 20, 21, 22, 27, 28, 29.



## Farm Financing (*Continued*)

average 8.02 per cent of the principal annually.

Having determined the amount you can afford as your total annual payment on principal and interest, divide this figure by 8.02 to arrive at the principal amount of the maximum loan you can handle when spread out over 20 years at 5 per cent interest. Conversely, if you are given the amount of the loan on a farm at 5 per cent for 20 years and wish to know how much to budget annually to retire it, multiply the principal by 0.0802.

If the loan were made for 15 years at 5 per cent, with equal annual payments on the principal, the budgeted figure of \$753.11 would pay off a loan of \$7,845.00. In this case the percentage of the principal represented by the equal annual principal and interest payments is 9.6. The formula for arriving at the maximum loan here is to divide the total annual payments on principal and interest by 9.6.

You can easily make the same calculations on your own farm. Ask your County Extension Agent to furnish you with the twenty year average yields and the farm prices for the community in which you live. Then apply these figures to your own farm to determine how large a loan you can safely carry.

Properly used, this borrowed capital should have earned several times its cost in interest to the borrower as compensation for his work and for the risks he takes as an enterpriser. The lender gets a small return with his capital secured. The borrower has a chance of making a very substantial return, but with the risks that are inherent in enterprise of any kind. That is the economic law of compensation.

The good financier accumulates revenues to carry him through low crop years and times of low prices. Most farm loans are made with the provision that the notes may be paid off in advance of maturity if desired. In periods of high prices or good crop yields, it is wise to prepay on your loan. Inflated dollars are worth

less than 100 cents in what they will buy, but in paying off a debt they will never be better.

Financial planning should always be on a long-time basis. Refigure and adjust your obligations to long-time averages. The time to prepare for tomorrow is now. The happy and proud farm families are those who know they can meet their obligations promptly and without great strain. They are indeed the captains of their souls and the masters of their fate because they own their acres free and clear.





# Maintenance Tips



## Air Cleaners

Grit and dirt which enter the combustion chamber cause rapid wear, clog rings, foul plugs and combine with carbon to form deposits. Clogged air cleaners restrict air flow and reduce engine power.



Tractor manufacturers emphasize the need for daily servicing of air cleaners—and even more frequently under extremely dusty conditions. Connections to the carburetor and to the engine intake manifold should be inspected for leaks, as even tiny openings let dirt in.

Wash metal gauge filter elements in kerosene. Do not wash or oil pad in cover—merely wipe clean.

In oil-bath type cleaners, discard oil, clean oil reservoir, and refill with engine oil. Do not overfill. The element of oil-wetted type cleaners should be allowed to drain after re-oiling, before the unit is reassembled.

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## Fuel Sediment Bowl and Screen



The fuel sediment bowl and screen on carburetor-type engines act as traps to remove dirt or small amounts of water that may be carried in the fuel. Clean sediment bowls at least once a month and glass bowls whenever dirt or water become noticeable. In reassembling, see that gasket fits properly—otherwise, use a new gasket. Metal bowls fitted with drain cocks should be “tried” daily, to remove any collected water.



## Fuel Oil Filters

Erratic engine operation or loss of power may be due to insufficient fuel flow, resulting from partially clogged filters. Automotive type Diesel engine fuel systems are often fitted with as many as four different types of fuel cleaning units; the type and number used may vary considerably from engine to engine. 1. **FUEL TANK FILTER**—inspect screen each time the unit is fueled. Rinse in clean Diesel fuel when dirty. 2. **PRIMARY FUEL LINE**

**FILTER**—where fitted with a drain cock, open daily to draw off any accumulated water or sediment. Follow manufacturer's recommendations for cleaning screen. 3. **SECONDARY FILTER**—follow manufacturer's recommendations for servicing. 4. **INJECTOR FILTERS**—cleaning not often needed, and should be done by a mechanic thoroughly familiar with these delicate parts, which are located right in the injection units of the engines.

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## Spark Plugs

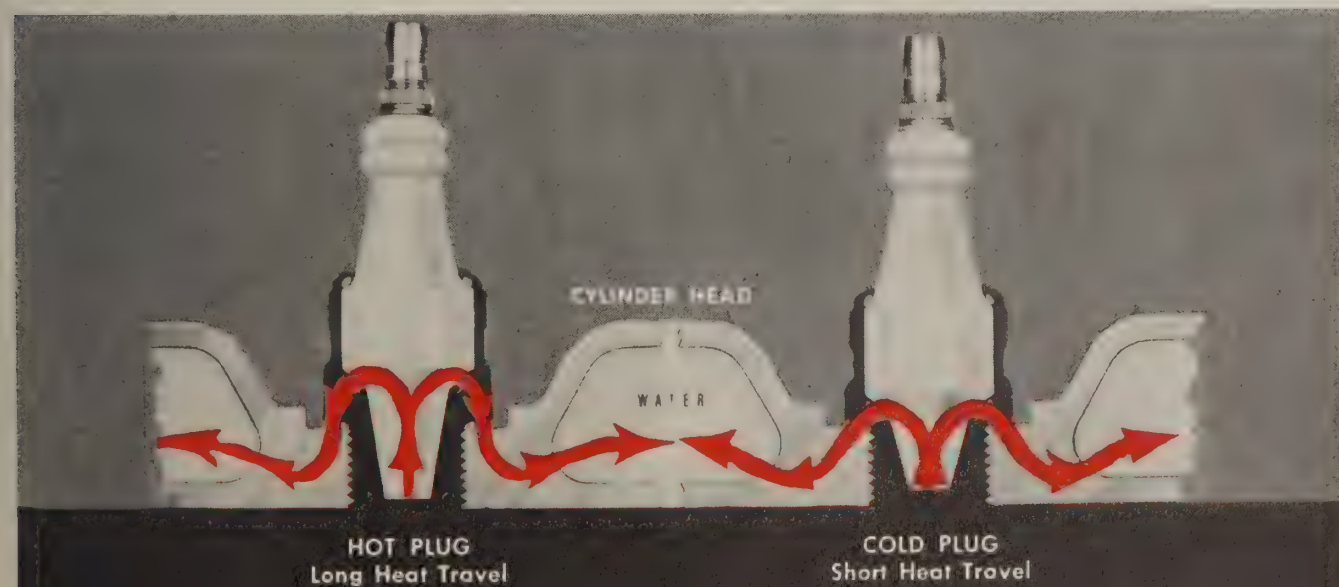
Fouled, burned, improperly-gapped or incorrect type spark plugs may waste fuel, cause erratic performance and reduce engine power.

Spark plugs vary in heat range from "Hot Plugs" to "Cold Plugs". Hot-type plugs are used when operating on heavy fuels, as they tend to burn off fouling deposits. Gasoline burns cleaner, so cold-type plugs are used to reduce combustion chamber "hot spots" that cause "pre-ignition." Spark plugs should run cool enough to give long service but hot enough to help keep them clean. Usually a plug that fouls quickly and collects excessive carbon on the electrodes is too cold for the operation.

Where the electrodes are rapidly burned or the insulator nose blistered or cracked, it is too hot.

Insulator discoloration is caused by various engine temperature conditions. When plugs give indication of abnormal temperature condition, check to see if they are the recommended type for the engine. Consult the manufacturer's chart.

Remove tractor spark plugs after every 240 hours of operation and adjust gaps to correct setting. In replacing plugs, use a new gasket if possible. Screw plug in with fingers and tighten lightly with a wrench. Keep outside surfaces clean.







June

MOON'S PHASES

|      | EASTERN |    |      | CENTRAL |    |      | MOUNTAIN |    |      | PACIFIC |    |      |
|------|---------|----|------|---------|----|------|----------|----|------|---------|----|------|
|      | D.      | H. | M.   | D.      | H. | M.   | D.       | H. | M.   | D.      | H. | M.   |
| L.Q. | 4       | 0  | 35 A | 4       | 11 | 35 M | 4        | 10 | 35 M | 4       | 9  | 35 M |
| N.M. | 11      | 9  | 55 M | 11      | 8  | 55 M | 11       | 7  | 55 M | 11      | 6  | 55 M |
| F.Q. | 19      | 7  | 01 M | 19      | 6  | 01 M | 19       | 5  | 01 M | 19      | 4  | 01 M |
| F.M. | 26      | 10 | 29 A | 26      | 9  | 29 A | 26       | 8  | 29 A | 26      | 7  | 29 A |

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Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. M. |    | D. W. |                                     | Moon Signs | Sun rises |    | Sun sets |    | Moon rises |    | SUN FAST | Sun rises |    | Sun sets |    | Moon rises |    | Sun rises |    | Sun sets |    | Moon rises |    |
|-------|----|-------|-------------------------------------|------------|-----------|----|----------|----|------------|----|----------|-----------|----|----------|----|------------|----|-----------|----|----------|----|------------|----|
|       |    |       |                                     |            | H.        | M. | H.       | M. | H.         | M. |          | H.        | M. | H.       | M. | H.         | M. | H.        | M. | H.       | M. | H.         | M. |
| 1     | Mo | ♄     | in ♍                                | ♄          | 4         | 25 | 7        | 31 | 11         | 11 | 2        | 4         | 30 | 7        | 25 | 11         | 7  | 4         | 53 | 7        | 2  | 10         | 48 |
| 2     | Tu | ♄ ♀ ♀ |                                     | ♄          | 4         | 25 | 7        | 32 | 11         | 41 | 2        | 4         | 30 | 7        | 26 | 11         | 38 | 4         | 53 | 7        | 3  | 11         | 25 |
| 3     | We | ♄     | Jefferson Davis' Birthday           | ♄          | 4         | 24 | 7        | 32 | morn       |    | 2        | 4         | 29 | 7        | 27 | morn       |    | 4         | 53 | 7        | 3  | 11         | 58 |
| 4     | Th | ♄     | 4. Corpus Christi                   | ♄          | 4         | 24 | 7        | 33 | 12         | 6  | 2        | 4         | 29 | 7        | 27 | 12         | 5  | 4         | 53 | 7        | 4  | morn       |    |
| 5     | Fr | ♄     | ♄ in perigee, ♀ Gr. Hel. Lat. N.    | ♄          | 4         | 24 | 7        | 34 | 12         | 30 | 2        | 4         | 29 | 7        | 28 | 12         | 30 | 4         | 52 | 7        | 4  | 12         | 30 |
| 6     | Sa | ♄     | Caribbean Sea Air Crash (28d), 1950 | ♄          | 4         | 23 | 7        | 35 | 12         | 55 | 1        | 4         | 29 | 7        | 29 | 12         | 56 | 4         | 52 | 7        | 5  | 1          | 1  |

23. 1st Sunday after Trinity Luke 16 Day's length 15h. 13m. 15h. 1m. 14h. 13m.

|    |    |              |                                        |   |   |    |   |    |      |    |     |   |    |   |    |      |    |   |    |   |   |      |    |
|----|----|--------------|----------------------------------------|---|---|----|---|----|------|----|-----|---|----|---|----|------|----|---|----|---|---|------|----|
| 7  | Su | ♄            | Railway Strike in France, 1947         | ♄ | 4 | 22 | 7 | 35 | 1    | 21 | 1   | 4 | 28 | 7 | 29 | 1    | 23 | 4 | 52 | 7 | 5 | 1    | 35 |
| 8  | Mo | ♄ ♀ ♄        |                                        | ♄ | 4 | 22 | 7 | 36 | 1    | 50 | 1   | 4 | 28 | 7 | 30 | 1    | 53 | 4 | 52 | 7 | 6 | 2    | 11 |
| 9  | Tu | ♄            | First Woman U. S. Treasurer, 1949      | ♄ | 4 | 22 | 7 | 36 | 2    | 25 | 1   | 4 | 28 | 7 | 31 | 2    | 30 | 4 | 52 | 7 | 7 | 2    | 53 |
| 10 | We | ♄            | ♄ ♄ ♄                                  | ♄ | 4 | 22 | 7 | 37 | 3    | 7  | 1   | 4 | 28 | 7 | 32 | 3    | 13 | 4 | 52 | 7 | 7 | 3    | 40 |
| 11 | Th | ♄            | 11. Landslide in India (50 died), 1950 | ♄ | 4 | 21 | 7 | 37 | sets |    | 0   | 4 | 27 | 7 | 32 | sets |    | 4 | 51 | 7 | 8 | sets |    |
| 12 | Fr | ♄ ♀ ♄        |                                        | ♄ | 4 | 21 | 7 | 38 | 9    | 1  | 0   | 4 | 27 | 7 | 33 | 8    | 55 | 4 | 51 | 7 | 8 | 8    | 28 |
| 13 | Sa | ♄ ♀ ♄, ♄ ♄ ♄ |                                        | ♄ | 4 | 21 | 7 | 38 | 9    | 41 | Sl. | 4 | 26 | 7 | 33 | 9    | 35 | 4 | 51 | 7 | 9 | 9    | 12 |

24. 2nd Sunday after Trinity Luke 14 Day's length 15h. 18m. 15h. 8m. 14h. 18m.

|    |    |       |                                    |   |   |    |   |    |      |    |   |   |    |   |    |      |    |   |    |   |    |      |    |
|----|----|-------|------------------------------------|---|---|----|---|----|------|----|---|---|----|---|----|------|----|---|----|---|----|------|----|
| 14 | Su | ♄     | Flag Day. Children's Day, ♄ in ♍   | ♄ | 4 | 21 | 7 | 39 | 10   | 13 | 0 | 4 | 26 | 7 | 34 | 10   | 9  | 4 | 51 | 7 | 9  | 9    | 49 |
| 15 | Mo | ♄     | U. S. Planes bombed Yawata, 1944   | ♄ | 4 | 21 | 7 | 39 | 10   | 39 | 0 | 4 | 26 | 7 | 34 | 10   | 34 | 4 | 51 | 7 | 9  | 10   | 21 |
| 16 | Tu | ♄ ♀ ♄ |                                    | ♄ | 4 | 21 | 7 | 40 | 11   | 1  | 1 | 4 | 26 | 7 | 35 | 10   | 59 | 4 | 51 | 7 | 9  | 10   | 50 |
| 17 | We | ♄     | Turks shelled U. S. Plane, 1948    | ♄ | 4 | 21 | 7 | 40 | 11   | 21 | 1 | 4 | 26 | 7 | 35 | 11   | 20 | 4 | 52 | 7 | 10 | 11   | 17 |
| 18 | Th | ♄     | ♄ in apogee                        | ♄ | 4 | 21 | 7 | 40 | 11   | 41 | 1 | 4 | 26 | 7 | 35 | 11   | 41 | 4 | 52 | 7 | 10 | 11   | 42 |
| 19 | Fr | ♄     | 19. ♀ in aphelion                  | ♄ | 4 | 21 | 7 | 41 | 12   | 0  | 1 | 4 | 26 | 7 | 36 | morn |    | 4 | 52 | 7 | 10 | morn |    |
| 20 | Sa | ♄     | Queen Victoria ascen. Throne, 1837 | ♄ | 4 | 22 | 7 | 41 | morn |    | 1 | 4 | 27 | 7 | 36 | 12   | 1  | 4 | 52 | 7 | 11 | 12   | 8  |

25. 3rd Sunday after Trinity Luke 15 Day's length 15h. 19m. 15h. 11m. 14h. 19m.

|    |    |   |                                        |   |   |    |   |    |       |    |   |   |    |   |    |       |    |   |    |   |    |       |    |
|----|----|---|----------------------------------------|---|---|----|---|----|-------|----|---|---|----|---|----|-------|----|---|----|---|----|-------|----|
| 21 | Su | ♄ | Fathers' Day. ♄ ♄ ♄, ♄ ♄ ♄, ♄ enters ♄ | ♄ | 4 | 22 | 7 | 41 | 12    | 21 | 2 | 4 | 27 | 7 | 36 | 12    | 23 | 4 | 52 | 7 | 11 | 12    | 35 |
| 22 | Mo | ♄ | ♀ Gr. Elong W. 45° 46' [Summer begins  | ♄ | 4 | 22 | 7 | 41 | 12    | 45 | 2 | 4 | 27 | 7 | 36 | 12    | 49 | 4 | 53 | 7 | 11 | 1     | 5  |
| 23 | Tu | ♄ | Lake Michigan Air Crash (58d), 1950    | ♄ | 4 | 22 | 7 | 41 | 1     | 13 | 2 | 4 | 27 | 7 | 36 | 1     | 18 | 4 | 53 | 7 | 11 | 1     | 40 |
| 24 | We | ♄ | ♄ Stationary                           | ♄ | 4 | 23 | 7 | 42 | 1     | 49 | 2 | 4 | 28 | 7 | 37 | 1     | 54 | 4 | 53 | 7 | 11 | 2     | 20 |
| 25 | Th | ♄ | Pacific War Council met, 1942          | ♄ | 4 | 23 | 7 | 42 | 2     | 34 | 3 | 4 | 28 | 7 | 37 | 2     | 40 | 4 | 53 | 7 | 12 | 3     | 10 |
| 26 | Fr | ♄ | 26. Red Army entered Seoul, '50        | ♄ | 4 | 23 | 7 | 42 | rises |    | 3 | 4 | 28 | 7 | 37 | rises |    | 4 | 54 | 7 | 12 | rises |    |
| 27 | Sa | ♄ | ♀ Gr. Elong. E. 25° 31'                | ♄ | 4 | 24 | 7 | 42 | 8     | 33 | 3 | 4 | 29 | 7 | 37 | 8     | 27 | 4 | 54 | 7 | 12 | 8     | 1  |

26. 4th Sunday after Trinity Luke 6 Day's length 15h. 18m. 15h. 8m. 14h. 18m.

|    |    |   |                                     |   |   |    |   |    |    |    |   |   |    |   |    |    |    |   |    |   |    |    |    |
|----|----|---|-------------------------------------|---|---|----|---|----|----|----|---|---|----|---|----|----|----|---|----|---|----|----|----|
| 28 | Su | ♄ | ♄ in ♍                              | ♄ | 4 | 24 | 7 | 42 | 9  | 11 | 3 | 4 | 29 | 7 | 37 | 9  | 7  | 4 | 54 | 7 | 12 | 8  | 46 |
| 29 | Mo | ♄ | ♀ in ♍                              | ♄ | 4 | 25 | 7 | 42 | 9  | 43 | 3 | 4 | 29 | 7 | 37 | 9  | 40 | 4 | 55 | 7 | 12 | 9  | 26 |
| 30 | Tu | ♄ | Hebrew Fast of Tammuz. ♄ in perigee | ♄ | 4 | 25 | 7 | 42 | 10 | 11 | 4 | 4 | 30 | 7 | 37 | 10 | 8  | 4 | 55 | 7 | 12 | 10 | 0  |

WEATHER FORECAST FOR JUNE

1st to 3rd—Unsettled and blustery over the Great Lakes and local thunder showers in the New England states and southward along the Atlantic seaboard. Clear and pleasant in northwest sections. Wind squalls in California.

4th to 7th—Pleasant and cooler on the Pacific slope and over the plateau area. Changeable and blustery on the western plains and along the Mississippi River. Unsettled in the east up to the last of the week.

8th to 11th—Unpleasant as wind storms hit many sections of country. Rain squalls along Great Lakes and cloud-bursts in the Appalachian Mountains. Blustery weather in the northwest and sand storms on the southern plains.

12th to 15th—Hot and dry in the southeastern states and along the Gulf, where frequent thunder storms bring little rain. Windy in the southwest with sharp thunder storms bringing some relief from the dry weather.

16th to 19th—Wet and disagreeable in the northwestern states and blustery over the northern plains. Cooler in Oregon and Washington. Fair and warmer along the Great Lakes and into New England. Hot in the southeast.

20th to 23rd—Clear skies and cooler in western sections, becoming unsettled on the central plains as temperatures rise. Very hot in the southwest with scattered dust storms. Thunder storms in the east and southeast.

24th to 27th—Thunder showers in Gulf states and westward into Texas. Clear and cool on western plateau and along Pacific coast. Pleasant showers in the upper Mississippi valley and along Ohio River. Blustery in Atlantic states.

28th to 30th—Unsettled in the northeastern states with fogs along the coast, much warmer to the south. Clear and hot in the southwest with thunder storms on the southern plateau. Wind squalls in the northwest.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 3, 4, 7, 8, 12, 13, 19, 20, 21, 22, 23, 26, 27, 30.

Do not plant on 1, 2, 5, 6, 9, 10, 11, 14, 15, 16, 17, 18, 24, 25, 28, 29.



### Servicing the Cooling System

Engine manufacturers recommend that cooling systems be given a flushing job at least twice a year. Here is a simple five-step procedure:

1. Remove radiator cap and open drains on radiator and engine block. (**CAUTION: Never add cold water to a hot engine.**) Insert hose in radiator opening, keeping nozzle below water level. Feed sufficient water to keep water level normal, with drain cocks open. Start engine and idle for about five minutes. Stop engine. Shut off water and when system is about half empty, close all drain cocks.
2. Pour in one quart package of Mobil Radiator Flush for each 24 quarts or less of cooling system capacity. Refill system with water to one inch or one and one-half inch below lower edge of filler neck, to allow space for expansion. Replace radiator cap.
3. Run engine at moderate speed for 15 minutes, then, for about 15 minutes more, speed up engine at intervals but do not race it. It is important that engine be run at both low and higher speeds. Each

gives a separate cleaning action. **Do not allow solution to boil!**

4. Stop engine. Remove radiator cap. Open drain cocks on radiator and engine block and add water to *maintain* level about one and one-half inch below edge of filler neck. **Do Not Allow Radiator to Overflow!** Let water run until flow from cocks runs clean. Shut off water and close drain cocks immediately. Run engine at idle speed for about five minutes, or until thermostat opens. Shut off engine, open cocks and drain completely.
5. Close all drain cocks. Fill system to normal level. Add Mobil Hydrotone to keep engine clean, unless it is planned to immediately provide protection against freezing by use of an anti-freeze with corrosion-preventive qualities. Let engine continue to run until thermostat opens and any trapped air escapes. If considerable air has been trapped in the system, it may be necessary to add more water to restore level. Replace radiator cap and shut off engine.

---

### Winter Operation

It doesn't pay to take chances with radiators in cold weather. Mobil Freezone will not only protect car, truck and tractor radiators against freezing, it will help keep them free of rust and corrosion, too. Mobil Freezone is a super-quality alcohol-type anti-freeze of high concentration.

Mobil Permazone is an ethylene

glycol permanent-type anti-freeze which does not evaporate...one filling lasts all winter, protects against corrosion also.

Your Mobiloil man can tell you the recommended concentrations to use in your equipment. Anti-freeze saves you the bother of draining and refilling every time you use the tractor in the winter time.





July

MOON'S PHASES

|      | EASTERN |    |      | CENTRAL |    |      | MOUNTAIN |    |      | PACIFIC |    |      |
|------|---------|----|------|---------|----|------|----------|----|------|---------|----|------|
|      | D.      | H. | M.   | D.      | H. | M.   | D.       | H. | M.   | D.      | H. | M.   |
| L.Q. | 3       | 5  | 03 A | 3       | 4  | 03 A | 3        | 3  | 03 A | 3       | 2  | 03 A |
| N.M. | 10      | 9  | 28 A | 10      | 8  | 28 A | 10       | 7  | 28 A | 10      | 6  | 28 A |
| F.Q. | 18      | 11 | 47 A | 18      | 10 | 47 A | 18       | 9  | 47 A | 18      | 8  | 47 A |
| F.M. | 26      | 7  | 20 M | 26      | 6  | 20 M | 26       | 5  | 20 M | 26      | 4  | 20 M |

LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. | D. | HISTORICAL EVENTS                 |   | Moon Signs | Sun rises | Sun sets | Moon rises | SUN SLOW | Sun rises | Sun sets | Moon rises | Sun rises | Sun sets | Moon rises |
|----|----|-----------------------------------|---|------------|-----------|----------|------------|----------|-----------|----------|------------|-----------|----------|------------|
| M. | W. |                                   |   |            | H. M.     | H. M.    | H. M.      | M        | H. M.     | H. M.    | H. M.      | H. M.     | H. M.    | H. M.      |
| 1  | We | First U. S. Stamps on sale, 1847  | ☾ | ☾          | 4 25      | 7 42     | 10 35      |          | 4 4       | 30 7     | 37 10      | 34 4      | 56 7     | 12 10      |
| 2  | Th | Flying Saucers seen in U.S., 1947 | ☾ | ☾          | 4 26      | 7 41     | 10 59      |          | 4 4       | 31 7     | 37 11      | 0 4       | 56 7     | 12 11      |
| 3  | Fr | 3. Dog Days begin. ♄ stationary   | ☾ | ☾          | 4 27      | 7 41     | 11 25      |          | 4 4       | 31 7     | 36 11      | 27 4      | 56 7     | 12 11      |
| 4  | Sa | Independence Day                  | ☾ | ☾          | 4 27      | 7 41     | 11 53      |          | 4 4       | 32 7     | 36 11      | 56 4      | 57 7     | 12 morn    |

27. 5th Sunday after Trinity Matt. 5 Day's length 15h. 13m. 15h. 3m. 14h. 15m.

|    |    |                                    |   |   |      |      |       |  |     |      |         |      |      |       |
|----|----|------------------------------------|---|---|------|------|-------|--|-----|------|---------|------|------|-------|
| 5  | Su | ⊕ in aphelion                      | ☾ | ☾ | 4 28 | 7 41 | morn  |  | 4 4 | 32 7 | 35 morn | 4 5  | 57 7 | 12 12 |
| 6  | Mo | Santa Fe R.R. Crash (9 died), 1950 | ☾ | ☾ | 4 29 | 7 40 | 12 25 |  | 5 4 | 33 7 | 35 12   | 29 4 | 58 7 | 11 12 |
| 7  | Tu | ♂ ♀ ☾                              | ☾ | ☾ | 4 29 | 7 40 | 1 3   |  | 5 4 | 34 7 | 35 1    | 8 4  | 58 7 | 11 1  |
| 8  | We | ♂ ♀ ☾, ♂ ♂ ☾                       | ☾ | ☾ | 4 30 | 7 40 | 1 51  |  | 5 4 | 35 7 | 34 1    | 57 4 | 59 7 | 11 2  |
| 9  | Th | ♀ in aphelion                      | ☾ | ☾ | 4 31 | 7 40 | 2 45  |  | 5 4 | 36 7 | 34 2    | 51 4 | 59 7 | 10 3  |
| 10 | Fr | 10. ♄ stat., ♂ ♀ ♄, ♂ ♂ ☾          | ☾ | ☾ | 4 31 | 7 39 | sets  |  | 5 4 | 37 7 | 33 sets | 5 0  | 7 10 | sets  |
| 11 | Sa | ♂ ♂ ☾ [Eclipse of ☾]               | ☾ | ☾ | 4 32 | 7 39 | 8 12  |  | 5 4 | 37 7 | 33 8    | 8 5  | 0 7  | 10 7  |

28. 6th Sunday after Trinity Matt. 5 Day's length 15h. 5m. 14h. 55m. 14h. 9m.

|    |    |                                          |   |   |      |      |       |  |     |      |       |      |     |      |
|----|----|------------------------------------------|---|---|------|------|-------|--|-----|------|-------|------|-----|------|
| 12 | Su | ♄ in ☾, ♀ Gr. Hel. Lat. S., ♂ ♂ ☾, ♂ ♂ ☾ | ☾ | ☾ | 4 33 | 7 38 | 8 40  |  | 6 4 | 38 7 | 33 8  | 37 5 | 1 7 | 10 8 |
| 13 | Mo | ☾ ♀ ☾, ☾ ♀ ☾                             | ☾ | ☾ | 4 34 | 7 38 | 9 5   |  | 6 4 | 39 7 | 32 9  | 2 5  | 1 7 | 9 8  |
| 14 | Tu | Red Riots in Calcutta, 1949              | ☾ | ☾ | 4 34 | 7 37 | 9 25  |  | 6 4 | 39 7 | 32 9  | 24 5 | 2 7 | 9 9  |
| 15 | We | St. Swithin's Day.                       | ☾ | ☾ | 4 35 | 7 36 | 9 45  |  | 6 4 | 40 7 | 31 9  | 44 5 | 2 7 | 9 9  |
| 16 | Th | ♄ in apogee                              | ☾ | ☾ | 4 36 | 7 36 | 10 4  |  | 6 4 | 41 7 | 31 10 | 5 5  | 3 7 | 8 10 |
| 17 | Fr | Southern Dem. bolted Party, 1948         | ☾ | ☾ | 4 36 | 7 35 | 10 25 |  | 6 4 | 41 7 | 30 10 | 27 5 | 4 7 | 8 10 |
| 18 | Sa | 18. ♂ ♀ ☾, ♂ ♀ ☾                         | ☾ | ☾ | 4 37 | 7 34 | 10 46 |  | 6 4 | 42 7 | 29 10 | 49 5 | 4 7 | 7 11 |

29. 7th Sunday after Trinity Mark 8 Day's length 14h. 56m. 14h. 46m. 14h. 2m.

|    |    |                                    |   |   |      |      |       |  |     |      |         |      |     |        |
|----|----|------------------------------------|---|---|------|------|-------|--|-----|------|---------|------|-----|--------|
| 19 | Su | Race Riots in Washington, 1919     | ☾ | ☾ | 4 38 | 7 34 | 11 12 |  | 6 4 | 43 7 | 29 11   | 16 5 | 5 7 | 7 11   |
| 20 | Mo | Reds capture Taejon, Korea, 1950   | ☾ | ☾ | 4 39 | 7 33 | 11 44 |  | 6 4 | 44 7 | 28 11   | 49 5 | 6 7 | 7 morn |
| 21 | Tu | Hebrew Fast of Av                  | ☾ | ☾ | 4 40 | 7 32 | morn  |  | 6 4 | 45 7 | 27 morn | 5 6  | 7 6 | 12 13  |
| 22 | We | ♂ ♀ ☾, ☾ enters ☾                  | ☾ | ☾ | 4 41 | 7 31 | 12 24 |  | 6 4 | 46 7 | 26 12   | 30 5 | 7 7 | 6 12   |
| 23 | Th | Java Scorched Earth Retreat, 1947  | ☾ | ☾ | 4 42 | 7 30 | 1 14  |  | 6 4 | 46 7 | 26 1    | 20 5 | 8 7 | 5 1    |
| 24 | Fr | Eastland Disaster (852 died), 1915 | ☾ | ☾ | 4 43 | 7 29 | 2 15  |  | 6 4 | 47 7 | 25 2    | 22 5 | 8 7 | 5 2    |
| 25 | Sa | Inf. ♂ ☾ ☾                         | ☾ | ☾ | 4 44 | 7 28 | 3 26  |  | 6 4 | 48 7 | 24 3    | 31 5 | 9 7 | 4 3    |

30. 8th Sunday after Trinity Matt. 7 Day's length 14h. 42m. 14h. 34m. 13h. 53m.

|    |    |                                   |   |   |      |      |       |  |     |      |          |      |      |       |
|----|----|-----------------------------------|---|---|------|------|-------|--|-----|------|----------|------|------|-------|
| 26 | Su | 26. ☾ in ☾, Eclipse of ☾          | ☾ | ☾ | 4 45 | 7 27 | rises |  | 6 4 | 49 7 | 23 rises | 5 10 | 7 3  | rises |
| 27 | Mo | ♂ ☾ ♂                             | ☾ | ☾ | 4 46 | 7 26 | 8 12  |  | 6 4 | 50 7 | 22 8     | 9 5  | 10 7 | 2 7   |
| 28 | Tu | ☾ in perigee                      | ☾ | ☾ | 4 47 | 7 25 | 8 38  |  | 6 4 | 51 7 | 21 8     | 37 5 | 11 7 | 1 8   |
| 29 | We | ♀ Gr. Hel. Lat. S.                | ☾ | ☾ | 4 48 | 7 24 | 9 3   |  | 6 4 | 52 7 | 20 9     | 3 5  | 12 7 | 1 9   |
| 30 | Th | Anti-Leopold Riots, Belgium, 1950 | ☾ | ☾ | 4 49 | 7 23 | 9 29  |  | 6 4 | 53 7 | 19 9     | 30 5 | 12 7 | 0 9   |
| 31 | Fr | U. S. Fliers bombed Munich, 1944  | ☾ | ☾ | 4 50 | 7 22 | 9 56  |  | 6 4 | 54 7 | 18 9     | 58 5 | 13 6 | 59 10 |

WEATHER FORECAST FOR JULY

1st to 3rd—Fine, agreeable weather in western sections, but very dry at most points. Windy and unsettled in the east with high temperatures and frequent thunder storms. Showers in the lower Mississippi valley.

4th to 7th—Violent thunder storms in sections of the northwest, hot and sultry in the southwest. Pleasant with cool breezes in states bordering the Great Lakes and north Atlantic. Stormy in many sections early in week.

8th to 11th—Wind storms and unpleasant in the south-eastern states, becoming clear and hot. Changeable and blustery in the central and northeastern areas. Rain squalls on the Pacific slope.

12th to 15th—Little rain in the northwest and over the upper Mississippi valley. Dry and hot in the southwest and northward over the plains. Thunder storms on the Gulf coast.

16th to 19th—A general heat wave covering most of the central and eastern part of the country. Cool breezes on the Great Lakes and along the Canadian border. Stormy in the Rockies and blustery in California.

20th to 23rd—Sultry weather and frequent thunder showers in Ohio River valley, Great Lakes area and New England. Wind squalls in southeast and along Gulf to lower Mississippi valley. Pleasant cool winds on Pacific coast.

24th to 27th—Pleasant in the lower Atlantic states, but hot. Fine breezy weather in the northwest and eastward along the Missouri River valley. Hot and dry in the northeast.

28th to 31st—Sultry conditions throughout the southwest with thunder storms in the mountains and dust storms further east. Unsettled in the upper Mississippi valley and eastward, becoming fair and cooler late in the week.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 1, 5, 6, 9, 10, 16, 17, 18, 19, 20, 23, 24, 25, 28, 29.

Do not plant on 2, 3, 4, 7, 8, 11, 12, 13, 14, 15, 21, 22, 26, 27, 30, 31.



# Quality Fuels

## *for Top Performance and Economy*



### For Maximum Power

**Mobilgas**—America's Favorite—is a high-quality gasoline carefully refined and blended for good performance all year round.

**Recommended for**—tractors, trucks, passenger cars and power units, for top engine performance and economy.

**Mobilgas Special**—the premium motor gasoline, of highest quality, specially refined to get top power from the new high-compression engines and other engines sensitive to fuel quality. Its high anti-knock quality and balanced volatility promote faster warm-up, acceleration and operating smoothness.

**Recommended for**—high-compression engines and other critical engines, for the best possible performance. It is especially recommended for cold weather.

**Mobilfuel Diesel**—a high-quality, low-sulphur, all-purpose distillate fuel, particularly adapted to high-speed diesel engines of the automotive type. Viscosity, volatility and ignition quality are carefully controlled to give smooth, efficient combustion, that in turn assures dependable operation.

Where required, in some areas, a lighter fuel, *Mobilfuel Diesel Special*, is made available. Its exceptional volatility characteristics promote ready starting and clean burning in cold weather.

### For Trouble-Free Light and Heat



**Mobil Kerosene**—a safe, clean, water-white petroleum fuel. It is non-corrosive, has excellent burning properties and causes little wick char or smoke. It is carefully handled from refinery to user to prevent contamination with water.

**Recommended for**—all types of kerosene lamps, refrigerators, ranges and kerosene-burning tractors, as well as space heaters, brooders, tank heaters. It is an excellent fuel for diesel trucks and tractors.

**Mobilheat Fuels**—branded quality fuel oils. Use of exacting refining methods assures the Mobilheat customer of efficient, clean-burning performance. These fuels are stable in storage, and are the most satisfactory and economical fuel oils for domestic heating and other farm uses.

**Recommended for**—domestic oil burners of the atomizing and vaporizing types, space heaters, hot water heaters, brooder stoves, tank and orchard heaters.

Mobilheat Fuels are sometimes made available in two grades to cover completely the range of farm equipment requirements. Consult your Mobiloil man for the proper fuel for your requirement.



|      | EASTERN A |   | CENTRAL |   | MOUNTAIN |   | PACIFIC |   |
|------|-----------|---|---------|---|----------|---|---------|---|
| L.Q. | 1 10 16   | A | 1 9 16  | A | 8 16     | A | 7 16    | A |
| N.M. | 9 11 10   | M | 9 10 10 | M | 9 9 10   | M | 9 8 10  | M |
| F.Q. | 17 3 08   | A | 17 2 08 | A | 17 1 08  | A | 17 0 08 | A |
| F.M. | 24 3 21   | A | 24 2 21 | A | 24 1 21  | A | 24 0 21 | A |
| L.Q. | 31 5 46   | M | 31 4 46 | M | 31 3 46  | M | 31 2 46 | M |

Of Boston, New  
England, New York  
State, S. Michigan,  
Wisconsin, Iowa,  
Wyo. and Oregon.

Of New York City,  
Philadelphia, Pa.,  
Conn., New Jersey,  
Ohio, Indiana, Cal.,  
Illinois and Neb.

Of Charleston, No.  
and So. Car., Ga.,  
Ala., Miss., Ark.,  
No. La. and Texas,  
Arizona, So. Calif.

## D. M. D. W. HISTORICAL EVENTS Moon Signs

|   |    |   |    |    |    |
|---|----|---|----|----|----|
| 4 | 51 | 7 | 21 | 10 | 27 |
|---|----|---|----|----|----|

| 4 | 55 | 7 | 17 | 10 | 3 |
|---|----|---|----|----|---|
|---|----|---|----|----|---|

|   |    |   |    |    |   |
|---|----|---|----|----|---|
| 5 | 13 | 6 | 59 | 10 | 5 |
|---|----|---|----|----|---|

|   |    |                             |   |    |   |    |    |    |   |   |    |   |    |    |    |   |    |   |    |    |    |
|---|----|-----------------------------|---|----|---|----|----|----|---|---|----|---|----|----|----|---|----|---|----|----|----|
| 1 | Sa | 1. Revolt in Ethiopia, 1950 | 4 | 51 | 7 | 21 | 10 | 27 | 6 | 4 | 55 | 7 | 17 | 10 | 30 | 5 | 13 | 6 | 59 | 10 | 50 |
|---|----|-----------------------------|---|----|---|----|----|----|---|---|----|---|----|----|----|---|----|---|----|----|----|

|   |    |                                 |   |    |   |    |    |   |   |   |    |   |    |    |   |   |    |   |    |    |    |
|---|----|---------------------------------|---|----|---|----|----|---|---|---|----|---|----|----|---|---|----|---|----|----|----|
| 2 | Su | U. S. entered World Court. 1946 | 4 | 52 | 7 | 20 | 11 | 3 | 6 | 4 | 56 | 7 | 16 | 11 | 8 | 5 | 14 | 6 | 58 | 11 | 33 |
|---|----|---------------------------------|---|----|---|----|----|---|---|---|----|---|----|----|---|---|----|---|----|----|----|

|      |                                 |   |   |    |   |    |      |    |   |   |    |   |    |      |    |   |    |   |    |      |    |
|------|---------------------------------|---|---|----|---|----|------|----|---|---|----|---|----|------|----|---|----|---|----|------|----|
| 2 Su | U. S. entered World Court, 1946 | ♂ | 4 | 52 | 7 | 20 | 11   | 3  | 6 | 4 | 56 | 7 | 16 | 11   | 8  | 5 | 14 | 6 | 58 | 11   | 33 |
| 3 Mo | Labor Draft in Israel, 1948     | ♂ | 4 | 53 | 7 | 19 | 11   | 47 | 6 | 4 | 57 | 7 | 15 | 11   | 53 | 5 | 15 | 6 | 57 | morn |    |
| 4 Tu | ♀ stationary, ♂ ♀ ♀             | ♂ | 4 | 54 | 7 | 18 | morn |    | 6 | 4 | 58 | 7 | 14 | morn |    | 5 | 15 | 6 | 56 | 12   | 21 |
| 5 We | ♂ ♀ ♀                           | ♂ | 4 | 55 | 7 | 16 | 12   | 40 | 6 | 4 | 59 | 7 | 12 | 12   | 46 | 5 | 16 | 6 | 55 | 1    | 16 |
| 6 Th | Transfiguration                 | ♂ | 4 | 56 | 7 | 15 | 1    | 39 | 6 | 5 | 0  | 7 | 11 | 1    | 45 | 5 | 16 | 6 | 55 | 2    | 14 |
| 7 Fr | ♂ ♂ ♀, ♂ ♀ ♀                    | ♂ | 4 | 57 | 7 | 14 | 2    | 43 | 6 | 5 | 1  | 7 | 10 | 2    | 48 | 5 | 17 | 6 | 54 | 3    | 14 |
| 8 Sa | ♀ in ♂, ♂ ♂ ♀                   | ♂ | 4 | 58 | 7 | 13 | 3    | 49 | 6 | 5 | 2  | 7 | 8  | 3    | 54 | 5 | 18 | 6 | 53 | 4    | 15 |

9|Su |  9. Eclipse of Sun |  4 59|7 11 | sets | 5|5 3|7 7 | sets | 5 19|6 52 | sets

|       |                                                                                                                       |   |   |    |   |    |      |   |   |   |   |   |      |   |    |   |    |      |
|-------|-----------------------------------------------------------------------------------------------------------------------|---|---|----|---|----|------|---|---|---|---|---|------|---|----|---|----|------|
| 9 Su  |  9. Eclipse of Sun                  | Ω | 4 | 59 | 7 | 11 | sets | 5 | 5 | 3 | 7 | 7 | sets | 5 | 19 | 6 | 52 | sets |
| 10 Mo |  Indiana Bus Crash (15 died), 1949 | Ω | 5 | 0  | 7 | 10 | 7 30 | 5 | 5 | 4 | 7 | 6 | 7 28 | 5 | 20 | 6 | 50 | 7 21 |
| 11 Tu | Dog Days end                                                                                                          | ♊ | 5 | 1  | 7 | 9  | 7 50 | 5 | 5 | 5 | 7 | 5 | 7 49 | 5 | 20 | 6 | 49 | 7 47 |
| 12 We | Hindu-Moslem Riots in India, 1947                                                                                     | ♊ | 5 | 2  | 7 | 7  | 8 9  | 5 | 5 | 6 | 7 | 4 | 8 10 | 5 | 21 | 6 | 48 | 8 12 |
| 13 Th | ♄ in apogee, ♀ Gr. Elong. 18° 49'                                                                                     | ♄ | 5 | 3  | 7 | 5  | 8 29 | 5 | 5 | 7 | 7 | 2 | 8 30 | 5 | 22 | 6 | 48 | 8 38 |
| 14 Fr | Revolution in Syria, 1949                                                                                             | ♄ | 5 | 5  | 7 | 4  | 8 50 | 5 | 5 | 8 | 7 | 1 | 8 52 | 5 | 22 | 6 | 47 | 9 5  |
| 15 Sa | Assumption B.V.M. ♂ ♀ ♂ ♀ ♂ ♀ ♂ ♀                                                                                     | ♄ | 5 | 6  | 7 | 3  | 9 14 | 4 | 5 | 9 | 7 | 0 | 9 18 | 5 | 23 | 6 | 46 | 9 35 |

|    |    |                                                                                     |                             |   |   |   |   |   |   |    |   |   |    |   |    |   |    |   |    |   |    |    |    |
|----|----|-------------------------------------------------------------------------------------|-----------------------------|---|---|---|---|---|---|----|---|---|----|---|----|---|----|---|----|---|----|----|----|
| 16 | Su |  | Race Riots in Chicago, 1950 | M | 5 | 7 | 7 | 1 | 9 | 42 | 4 | 5 | 10 | 6 | 58 | 9 | 47 | 5 | 24 | 6 | 45 | 10 | 10 |
|----|----|-------------------------------------------------------------------------------------|-----------------------------|---|---|---|---|---|---|----|---|---|----|---|----|---|----|---|----|---|----|----|----|

|       |                                                                                                                 |                                                                                     |   |    |   |    |      |    |   |   |    |   |    |      |    |   |    |   |    |      |    |
|-------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|----|---|----|------|----|---|---|----|---|----|------|----|---|----|---|----|------|----|
| 16 Su |  Race Riots in Chicago, 1950 |  | 5 | 7  | 7 | 1  | 9    | 42 | 4 | 5 | 10 | 6 | 58 | 9    | 47 | 5 | 24 | 6 | 45 | 10   | 10 |
| 17 Mo | 17. ♀ in ♍                                                                                                      |  | 5 | 8  | 7 | 0  | 10   | 18 | 4 | 5 | 10 | 6 | 57 | 10   | 24 | 5 | 25 | 6 | 44 | 10   | 50 |
| 18 Tu | Yanks bombed Rouen, 1942                                                                                        |  | 5 | 9  | 6 | 58 | 11   | 2  | 4 | 5 | 11 | 6 | 55 | 11   | 9  | 5 | 25 | 6 | 43 | 11   | 38 |
| 19 We | Forest Fires in California. 1950                                                                                |  | 5 | 10 | 6 | 57 | 11   | 57 | 3 | 5 | 12 | 6 | 54 | morn |    | 5 | 26 | 6 | 41 | morn |    |
| 20 Th | Germans entered Brussels, 1914                                                                                  |  | 5 | 11 | 6 | 55 | morn |    | 3 | 5 | 13 | 6 | 53 | 12   | 4  | 5 | 27 | 6 | 40 | 12   | 32 |
| 21 Fr | Railway Strike in U. S., 1950                                                                                   |  | 5 | 12 | 6 | 54 | 1    | 2  | 3 | 5 | 14 | 6 | 51 | 1    | 8  | 5 | 27 | 6 | 39 | 1    | 37 |
| 22 Sa | ♄ in ♍, ♀ in perihelion, ♀ ♀ ♄                                                                                  |  | 5 | 13 | 6 | 52 | 2    | 15 | 3 | 5 | 15 | 6 | 50 | 2    | 20 | 5 | 28 | 6 | 38 | 2    | 45 |

23 | Su | ☾☼ | ♀♂ | ☼ enters III | ♊ | 5 14 6 50 | 3 34 | 2 5 16 6 48 | 3 37 | 5 28 6 36 | 3 56

|       |                                                                                                                 |                                                                                     |           |       |             |       |           |       |
|-------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|-------|-------------|-------|-----------|-------|
| 23 Su |  $\odot$ enters $\text{III}$ |  | 5 14 6 50 | 3 34  | 2 5 16 6 48 | 3 37  | 5 28 6 36 | 3 56  |
| 24 Mo | 24. Brit. burned U.S. Capitol, 1814                                                                             |  | 5 15 6 48 | rises | 2 5 17 6 46 | rises | 5 29 6 35 | rises |
| 25 Tu | $\odot$ in perigee                                                                                              |  | 5 17 6 47 | 7 4   | 2 5 19 6 44 | 7 4   | 5 30 6 34 | 7 3   |
| 26 We | Great Java Earthquake, 1883                                                                                     |  | 5 18 6 46 | 7 30  | 2 5 20 6 43 | 7 31  | 5 31 6 33 | 7 37  |
| 27 Th | U. S. Gov. seized R. R., 1950                                                                                   |  | 5 19 6 44 | 7 58  | 1 5 21 6 41 | 8 1   | 5 31 6 32 | 8 11  |
| 28 Fr | Search for Ark began, 1948                                                                                      |  | 5 20 6 43 | 8 27  | 1 5 22 6 40 | 8 31  | 5 32 6 31 | 8 49  |
| 29 Sa | Last G.A.R. Encampment, 1949                                                                                    |  | 5 21 6 41 | 9 3   | 1 5 23 6 38 | 9 8   | 5 32 6 30 | 9 31  |

|    |    |                                                                                     |                              |   |    |   |    |   |    |   |   |    |   |    |   |    |   |    |   |    |    |    |
|----|----|-------------------------------------------------------------------------------------|------------------------------|---|----|---|----|---|----|---|---|----|---|----|---|----|---|----|---|----|----|----|
| 30 | Su |  | Hurricane in Louisiana, 1950 | 5 | 22 | 6 | 39 | 9 | 46 | 0 | 5 | 24 | 6 | 37 | 9 | 51 | 5 | 33 | 6 | 28 | 10 | 18 |
|----|----|-------------------------------------------------------------------------------------|------------------------------|---|----|---|----|---|----|---|---|----|---|----|---|----|---|----|---|----|----|----|

|    |    |                                                                                     |                                    |                                                                                     |   |    |   |    |    |    |   |   |    |   |    |    |    |   |    |   |    |    |    |
|----|----|-------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|---|----|---|----|----|----|---|---|----|---|----|----|----|---|----|---|----|----|----|
| 30 | Su |  | Hurricane in Louisiana, 1950       |  | 5 | 22 | 6 | 39 | 9  | 46 | 0 | 5 | 24 | 6 | 37 | 9  | 51 | 5 | 33 | 6 | 28 | 10 | 18 |
| 31 | Mo |  | 31. Earthquake in Philippines, '48 |  | 5 | 23 | 6 | 37 | 10 | 36 | 0 | 5 | 25 | 6 | 35 | 10 | 42 | 5 | 33 | 6 | 27 | 11 | 12 |

1st to 3rd—Stormy and disagreeable in the lower Mississippi valley and along the Gulf coast. Wind squalls in northwestern sections and blustery in the Great Lakes area and Ohio River valley. Wind storms in California.

4th to 7th—Changeable and blustery in the northern Rockies and along the Pacific coast. Strong northeast winds in the north Atlantic states and thunder storms further south. Dust storms in the southwest.

8th to 11th—Unsettled in the northeast area with cool northerly winds. Hot in the lower Atlantic states as violent thunder storms bring heavy rain. Clear skies in the southwest. Pleasant on the Pacific coast.

12th to 15th—Clear and warm in Great Lakes region and north Atlantic seaboard. Generally fair and hot in western and central sections. Unsettled and hot in lower south and Gulf area with heavy rains in southern Appalachians.

16th to 19th—Frequent thunder showers on the western plains and along the Rocky Mountains. Showers and blustery on the Pacific slope and in the plateau area. Hot and sultry in central and eastern sections.

20th to 23rd—Balmy and seasonable in New York and New England states. Fair and generally hot throughout west and southwest. Daily thunder storms in Florida and other Gulf states. Unsettled in northwest the first of the week.

24th to 27th—Generally clear and hot in the Great Lakes region and upper Mississippi valley. Very dry in the northwestern states and cool winds in California. Blustery on the Atlantic coast.

28th to 31st—Stormy weather in northeastern sections with heavy gales along New England coast. Strong winds in the Mississippi valley and westward to Rockies. Blustery squalls on the Pacific coast. Hot and dry in the southeast.

Plant on 1, 2, 5, 6, 7, 13, 14, 15, 16, 17, 20, 21, 24, 25, 28, 29.  
Do not plant on 3, 4, 8, 9, 10, 11, 12, 18, 19, 22, 23, 26, 27, 30, 31.



# First Aid



Some one in every household should be able to treat cuts, burns and other hurts and in case of more serious injuries requiring the doctor's attention, know what to do (or not do) until he can get there.

The following first aid practices touch on only the more common mishaps. It is good practice to study them and to supplement such information with a recognized first aid textbook, which should have a place on your bookshelf.

**Cuts:** Direct pressure applied to cuts with clean gauze rag is effective in reducing bleeding. Wash the wound with iodine or alcohol to help prevent infection.

**Burns:** Keep burned patient warm and comfortable. Expose burn by slitting clothing, not by pulling. Sprinkle baking soda on damp cloth and apply to burn. Keep moist with soaks of cool tea or water.

**Poison:** There are specific antidotes for each poison found about the average house, but in an emergency: 1. Make the poisoned victim drink water rapidly to flush stomach and dilute poison; 2. Give the patient a good emetic such as warm salt water, soapy water or baking soda to make him vomit.

**Fractures:** First aid for any fracture is to secure the limb with a splint. For leg, place feet so toes point upward. Put a board splint from well above the knee to just beyond the heel. Pad ankle. Wrap bandages around board and leg. A physi-

cian should set the fracture.

**Asphyxiation:** If someone is overcome by gas, open all windows and doors. Then apply artificial respiration. Place victim in lying position, stomach down, with head on left arm. Press heels of your hands in lower ribs for two seconds. Release for two seconds. Repeat rhythmically 12 or 15 times a minute until breathing is restored.

**Snake Bites:** For snake bite, apply a tourniquet. Try to keep the venom from spreading. Cut an "X"  $\frac{1}{4}$ " long and  $\frac{1}{4}$ " deep at the fang holes. Apply suction to the cuts to remove poison. Empty out the poison and repeat for half an hour.

**Sunstroke:** Remove to shade and cool place. Remove clothing. Apply cold to head with wet cloths, ice, ice bag, etc. Cool body. Wrap with sheet and spray with hose or pour on cold water every few minutes. Don't cool too much at a time.

**Concussion:** Keep patient lying down. If face is normal color or red, raise head slightly; if pale, keep level. Move only in lying position and handle very carefully. Avoid needless handling. Apply cold cloths or ice bag to head. Keep warm. Give *no* stimulants.



# Useful Tables

## Gestation Table

| Date of Service | Date Animal to Give Birth |          |          |          |
|-----------------|---------------------------|----------|----------|----------|
|                 | Mare                      | Cow      | Ewe      | Sow      |
| Jan. 1          | Dec. 6                    | Oct. 10  | May 30   | Apr. 22  |
| Jan. 21         | Dec. 26                   | Oct. 30  | June 19  | May 12   |
| Feb. 10         | Jan. 15                   | Nov. 19  | July 9   | June 1   |
| Feb. 20         | Jan. 25                   | Nov. 29  | July 19  | June 11  |
| Mar. 2          | Feb. 4                    | Dec. 9   | July 29  | June 21  |
| Mar. 22         | Feb. 24                   | Dec. 29  | Aug. 18  | July 11  |
| Apr. 1          | Mar. 6                    | Jan. 8   | Aug. 28  | July 21  |
| Apr. 21         | Mar. 26                   | Jan. 28  | Sept. 17 | Aug. 10  |
| May 1           | Apr. 5                    | Feb. 7   | Sept. 27 | Aug. 20  |
| May 21          | Apr. 25                   | Feb. 27  | Oct. 17  | Sept. 9  |
| June 10         | May 15                    | Mar. 19  | Nov. 6   | Sept. 29 |
| June 30         | June 4                    | Apr. 8   | Nov. 26  | Oct. 19  |
| July 10         | June 14                   | Apr. 18  | Dec. 6   | Oct. 29  |
| July 30         | July 4                    | May 8    | Dec. 26  | Nov. 18  |
| Aug. 9          | July 14                   | May 18   | Jan. 5   | Nov. 28  |
| Aug. 29         | Aug. 3                    | June 7   | Jan. 25  | Dec. 18  |
| Sept. 8         | Aug. 13                   | June 17  | Feb. 4   | Dec. 28  |
| Sept. 28        | Sept. 2                   | July 7   | Feb. 24  | Jan. 17  |
| Oct. 8          | Sept. 12                  | July 17  | Mar. 6   | Jan. 27  |
| Oct. 28         | Oct. 2                    | Aug. 6   | Mar. 26  | Feb. 16  |
| Nov. 7          | Oct. 12                   | Aug. 16  | Apr. 5   | Feb. 26  |
| Nov. 27         | Nov. 1                    | Sept. 5  | Apr. 25  | Mar. 18  |
| Dec. 7          | Nov. 11                   | Sept. 15 | May 5    | Mar. 28  |
| Dec. 27         | Dec. 1                    | Oct. 5   | May 25   | Apr. 17  |

## Poultry Incubation

| Kind                | Days  |
|---------------------|-------|
| Duck.....           | 21    |
| Duck (Muscovy)..... | 33-35 |
| Goose.....          | 30    |
| Guinea Fowl.....    | 26-28 |
| Hen.....            | 21    |
| Peafowl.....        | 28    |
| Pheasant.....       | 22-24 |
| Pigeon.....         | 17    |
| Turkey.....         | 28    |

The period of incubation varies somewhat with conditions, so that a hatch may run one or two days over or under.

## Number of Plants Required to an Acre of Ground When Planted at Given Distances

| Inches  | Plants  | Inches  | Plants |
|---------|---------|---------|--------|
| 2 x 8   | 392,040 | 15 x 42 | 9,953  |
| 2 x 10  | 313,632 | 15 x 48 | 8,712  |
| 2 x 12  | 261,360 | 18 x 30 | 11,616 |
| 3 x 8   | 261,360 | 18 x 36 | 9,680  |
| 3 x 10  | 209,088 | 18 x 42 | 8,297  |
| 3 x 12  | 174,240 | 18 x 48 | 7,260  |
| 4 x 8   | 196,020 | 20 x 36 | 8,712  |
| 4 x 10  | 156,816 | 20 x 42 | 7,467  |
| 4 x 12  | 130,680 | 20 x 48 | 7,534  |
| 5 x 12  | 104,544 | 24 x 36 | 7,260  |
| 6 x 6   | 174,240 | 24 x 48 | 5,445  |
| 6 x 8   | 130,680 | 24 x 60 | 4,356  |
| 6 x 10  | 104,544 | 24 x 72 | 3,630  |
| 6 x 12  | 87,120  | 24 x 96 | 2,722  |
| 8 x 10  | 78,408  | Feet    |        |
| 8 x 12  | 65,340  | 3 x 3   | 4,840  |
| 10 x 10 | 62,726  | 3 x 4   | 3,630  |
| 10 x 12 | 52,272  | 3 x 5   | 2,905  |
| 10 x 15 | 41,817  | 3 x 6   | 2,420  |
| 10 x 18 | 34,848  | 3 x 8   | 1,815  |
| 10 x 24 | 26,132  | 4 x 4   | 2,722  |
| 10 x 30 | 20,908  | 4 x 5   | 2,178  |
| 10 x 36 | 17,424  | 4 x 6   | 1,815  |
| 12 x 24 | 21,780  | 4 x 7   | 1,556  |
| 12 x 30 | 17,424  | 4 x 8   | 1,361  |
| 12 x 36 | 14,520  | 5 x 5   | 1,742  |
| 12 x 42 | 12,446  | 5 x 6   | 1,457  |
| 12 x 48 | 10,890  | 5 x 8   | 1,089  |
| 15 x 30 | 13,939  | 6 x 6   | 1,210  |

## Formula

To find the number of plants required for any distances apart, multiply the two distances in feet and divide the answer into 43,560. If using inches, divide into 6,272,640.

## To Find Gallons in Tanks

For square or oblong tanks, find cubic feet by multiplying length, width and depth together. Multiplying cubic feet by 7.4805 gives gallons.

For round tanks or cisterns multiply the diameter in feet by itself and the product by the depth in feet. Multiplying the result by 5.875 gives gallons, by .1865 gives barrels.



Mathematical Calculations

- To Find Circumference of Circle: Multiply diameter by 3.1416.
- To Find Diameter of Circle: Multiply circumference by 0.3183.
- To Find Radius of Circle: Multiply circumference by 0.15915.
- To Find the Area of a Circle: Multiply circumference by one-quarter of the diameter.
- To Find the Surface of a Sphere: Multiply the diameter by the circumference.

Concrete Mixtures

| Use of Concrete                                                       | Cement<br>cu. ft.<br>(sacks) | Sand<br>cu. ft. (1/4"<br>screen) | Aggre-<br>gate<br>cu. ft. | Maximum<br>size of<br>aggregate |
|-----------------------------------------------------------------------|------------------------------|----------------------------------|---------------------------|---------------------------------|
| Thin sections—fence posts, ornamental work; cooling tanks.....        | 1                            | 2                                | 2                         | 3/4"                            |
| Watertight work—cisterns, water tanks and troughs, silos, floors..... | 1                            | 2                                | 3                         | 1"                              |
| General work — pavements, basement walls, culverts, pits.....         | 1                            | 2 1/2                            | 3 1/2                     | 1 1/2"                          |
| Mass work—footings, foundations, which need not be watertight.....    | 1                            | 3                                | 5                         | 2"                              |

Field Seed Per Acre

| Crops                       | Average | Crops                               | Average |
|-----------------------------|---------|-------------------------------------|---------|
| Alfalfa, broadcast.....lbs. | 20      | Cowpeas, in drill with corn.....bu. | 3/4     |
| Alfalfa, drilled.....lbs.   | 15      | Cowpeas, for seed.....bu.           | 3/4     |
| Barley.....bu.              | 1 3/4   | Field peas, small.....bu.           | 1       |
| Beans, field, small.....bu. | 3/4     | Field peas, large.....bu.           | 1 1/4   |
| Beans, field, large.....bu. | 1 1/4   | Flaxseed.....lbs.                   | 30      |
| Beets (not sugar).....lbs.  | 6       | Oats.....bu.                        | 2 1/2   |
| Blue grass.....bu.          | 1 1/4   | Orchard grass.....lbs.              | 15      |
| Broom corn.....lbs.         | 6       | Peanuts.....bu.                     | 1 1/4   |
| Buckwheat.....bu.           | 1 1/4   | Potatoes.....bu.                    | 10      |
| Clover, alsike.....lbs.     | 8       | Rice.....bu.                        | 2       |
| Clover, Japan.....lbs.      | 15      | Rye, for grain.....bu.              | 1 1/2   |
| Clover, mammoth.....lbs.    | 10      | Rye, for forage.....bu.             | 2       |
| Clover, red, alone.....lbs. | 10      | Soy beans, drilled.....bu.          | 3/4     |
| Clover, red on grain...lbs. | 10      | Soy beans, broadcast...bu.          | 1 1/4   |
| Clover, crimson.....lbs.    | 15      | Sugar beets.....lbs.                | 13      |
| Corn, for grain.....lbs.    | 10      | Sweet potato plants...No.           | 6,605   |
| Corn, fodder.....lbs.       | 25      | Timothy.....lbs.                    | 10      |
| Cotton.....bu.              | 1       | Tobacco plants.....No.              | 5-5,000 |
| Cowpeas, for forage....bu.  | 1 1/2   | Wheat.....bu.                       | 1 1/2   |





September

| MOON'S PHASES |                                     |                   |           |           | LATITUDE   |           |          | SUN FAST   | LATITUDE                                                                               |           |          | LATITUDE                                                                                       |           |          |                                                                                                 |  |  |
|---------------|-------------------------------------|-------------------|-----------|-----------|------------|-----------|----------|------------|----------------------------------------------------------------------------------------|-----------|----------|------------------------------------------------------------------------------------------------|-----------|----------|-------------------------------------------------------------------------------------------------|--|--|
| EASTERN       |                                     | CENTRAL           |           | MOUNTAIN  |            | PACIFIC   |          |            | Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon. |           |          | Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb. |           |          | Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif. |  |  |
| N.M.          | D. H. M.                            | D. H. M.          | D. H. M.  | D. H. M.  | D. H. M.   | D. H. M.  | D. H. M. |            |                                                                                        |           |          |                                                                                                |           |          |                                                                                                 |  |  |
| F.Q.          | 16 4 49 M                           | 16 3 49 M         | 16 2 49 M | 16 1 49 M |            |           |          |            |                                                                                        |           |          |                                                                                                |           |          |                                                                                                 |  |  |
| F.M.          | 22 11 15 A                          | 22 10 15 A        | 22 9 15 A | 22 8 15 A |            |           |          |            |                                                                                        |           |          |                                                                                                |           |          |                                                                                                 |  |  |
| L.Q.          | 29 4 51 A                           | 29 3 51 A         | 29 2 51 A | 29 1 51 A |            |           |          |            |                                                                                        |           |          |                                                                                                |           |          |                                                                                                 |  |  |
| D. M.         | D. W.                               | HISTORICAL EVENTS |           |           | Moon Signs | Sun rises | Sun sets | Moon rises | M                                                                                      | Sun rises | Sun sets | Moon rises                                                                                     | Sun rises | Sun sets | Moon rises                                                                                      |  |  |
| H. M.         | H. M.                               | H. M.             | H. M.     | H. M.     | H. M.      | H. M.     | H. M.    | H. M.      | H. M.                                                                                  | H. M.     | H. M.    | H. M.                                                                                          | H. M.     | H. M.    | H. M.                                                                                           |  |  |
| 1 Tu          | ♂ ♀ ♄, ♀ Gr. Hel. Lat. N.           | ♏                 | II        | 5 24      | 6 36       | 11 33     | 0 5      | 26 6 34    | 11 39                                                                                  | 5 34      | 6 26     | morn                                                                                           |           |          |                                                                                                 |  |  |
| 2 We          | Philippine Volcano Exploded, 1948   | ♏                 | ♏         | 5 25      | 6 34       | morn      | 0 5      | 27 6 32    | morn                                                                                   | 5 35      | 6 24     | 12 9                                                                                           |           |          |                                                                                                 |  |  |
| 3 Th          | ♂ ♂ ♄                               | ♏                 | ♏         | 5 26      | 6 32       | 12 36     | 1 5      | 28 6 30    | 12 42                                                                                  | 5 36      | 6 23     | 1 8                                                                                            |           |          |                                                                                                 |  |  |
| 4 Fr          | ♄ in ♀, ♂ ♀ ♄                       | ♏                 | ♏         | 5 27      | 6 30       | 1 41      | 1 5      | 29 6 29    | 1 46                                                                                   | 5 36      | 6 22     | 2 9                                                                                            |           |          |                                                                                                 |  |  |
| 5 Sa          | U.S. Paratroops in New Guinea, 1943 | ♏                 | ♏         | 5 29      | 6 29       | 2 46      | 1 5      | 30 6 27    | 2 49                                                                                   | 5 37      | 6 20     | 3 8                                                                                            |           |          |                                                                                                 |  |  |

36. 14th Sunday after Trinity Luke 17 Day's length 12h. 57m. 12h. 54m. 12h. 41m.

|       |                                    |  |  |   |      |      |      |     |         |      |      |      |      |
|-------|------------------------------------|--|--|---|------|------|------|-----|---------|------|------|------|------|
| 6 Su  | ♂ ♂ ♄, ♀ in ♀                      |  |  | ♏ | 5 30 | 6 27 | 3 50 | 2 5 | 31 6 25 | 3 52 | 5 38 | 6 19 | 4 5  |
| 7 Mo  | Labor Day, Sup. ♂ ♀ ☉              |  |  | ♏ | 5 31 | 6 25 | 4 52 | 2 5 | 32 6 24 | 4 53 | 5 38 | 6 18 | 5 0  |
| 8 Tu  | 8. ♂ ♀ ♄                           |  |  | ♏ | 5 32 | 6 23 | sets | 2 5 | 33 6 22 | sets | 5 39 | 6 17 | sets |
| 9 We  | ♄ in apogee                        |  |  | ♏ | 5 33 | 6 22 | 6 35 | 3 5 | 33 6 21 | 6 36 | 5 39 | 6 15 | 6 42 |
| 10 Th | Hebrew New Year                    |  |  | ♏ | 5 34 | 6 20 | 6 56 | 3 5 | 34 6 19 | 6 58 | 5 40 | 6 14 | 7 9  |
| 11 Fr | ♄ ♄ ♄, ♂ ♀ ♄                       |  |  | ♏ | 5 35 | 6 18 | 7 20 | 4 5 | 35 6 17 | 7 22 | 5 41 | 6 13 | 7 38 |
| 12 Sa | Defense Day. Heb. Fast of Gedaliah |  |  | ♏ | 5 36 | 6 17 | 7 46 | 4 5 | 36 6 16 | 7 50 | 5 41 | 6 11 | 8 10 |

37. 15th Sunday after Trinity Matt. 6 Day's length 12h. 38m. 12h. 37m. 12h. 28m.

|       |                                       |  |  |   |      |      |       |     |         |       |      |      |       |
|-------|---------------------------------------|--|--|---|------|------|-------|-----|---------|-------|------|------|-------|
| 13 Su | Indians invaded Hyderabad, 1948       |  |  | ♏ | 5 37 | 6 15 | 8 18  | 4 5 | 37 6 14 | 8 23  | 5 42 | 6 10 | 8 48  |
| 14 Mo | Holy Cross Day                        |  |  | ♏ | 5 38 | 6 13 | 8 58  | 5 5 | 38 6 12 | 9 4   | 5 43 | 6 8  | 9 32  |
| 15 Tu | French ship hit mine (55d), 1950      |  |  | ♏ | 5 39 | 6 11 | 9 46  | 5 5 | 40 6 10 | 9 53  | 5 43 | 6 7  | 10 22 |
| 16 We | 16. Ember Day                         |  |  | ♏ | 5 40 | 6 9  | 10 45 | 5 5 | 41 6 8  | 10 51 | 5 44 | 6 6  | 11 21 |
| 17 Th | Constitution Day                      |  |  | ♏ | 5 41 | 6 8  | 11 53 | 6 5 | 42 6 7  | 11 58 | 5 44 | 6 5  | morn  |
| 18 Fr | Ember Day, ☐ ♄ ☉ [♂ Gr. Hel. Lat. N.] |  |  | ♏ | 5 42 | 6 6  | morn  | 6 5 | 43 6 5  | morn  | 5 45 | 6 3  | 12 25 |
| 19 Sa | Ember Day. Heb. Yom Kippoor. ♄ in ♀   |  |  | ♏ | 5 43 | 6 4  | 1 6   | 6 5 | 44 6 3  | 1 11  | 5 46 | 6 2  | 1 32  |

38. 16th Sunday after Trinity Luke 7 Day's length 12h. 18m. 12h. 17m. 12h. 15m.

|       |                                   |  |  |   |      |      |       |     |         |       |      |      |       |
|-------|-----------------------------------|--|--|---|------|------|-------|-----|---------|-------|------|------|-------|
| 20 Su | Marines crossed Han River, 1950   |  |  | ♏ | 5 45 | 6 3  | 2 24  | 7 5 | 45 6 2  | 2 27  | 5 46 | 6 1  | 2 42  |
| 21 Mo | New England Hurricane, 1938       |  |  | ♏ | 5 46 | 6 1  | 3 43  | 7 5 | 46 6 0  | 3 45  | 5 47 | 5 59 | 3 53  |
| 22 Tu | 22. ♄ in perigee                  |  |  | ♏ | 5 47 | 5 59 | rises | 7 5 | 47 5 59 | rises | 5 48 | 5 58 | rises |
| 23 We | ☉ enters ♌ Autumn begins          |  |  | ♏ | 5 48 | 5 57 | 5 55  | 8 5 | 48 5 57 | 5 57  | 5 48 | 5 56 | 6 5   |
| 24 Th | Hebrew Succoth                    |  |  | ♏ | 5 49 | 5 55 | 6 25  | 8 5 | 49 5 55 | 6 28  | 5 49 | 5 55 | 6 43  |
| 25 Fr | ♄ in ♀                            |  |  | ♏ | 5 50 | 5 53 | 7 0   | 8 5 | 50 5 53 | 7 4   | 5 50 | 5 54 | 7 24  |
| 26 Sa | U. S. Troop Transport Crash, 1950 |  |  | ♏ | 5 51 | 5 52 | 7 41  | 9 5 | 51 5 52 | 7 46  | 5 50 | 5 52 | 8 12  |

39. 17th Sunday after Trinity Luke 14 Day's length 11h. 58m. 11h. 58m. 12h. 0m.

|       |                                    |  |  |   |      |      |       |      |         |       |      |      |      |
|-------|------------------------------------|--|--|---|------|------|-------|------|---------|-------|------|------|------|
| 27 Su | Gold Star Mothers' Day             |  |  | ♏ | 5 52 | 5 50 | 8 29  | 9 5  | 52 5 50 | 8 35  | 5 51 | 5 51 | 9 4  |
| 28 Mo | ♄ ♄ ♄                              |  |  | ♏ | 5 53 | 5 48 | 9 26  | 9 5  | 53 5 48 | 9 32  | 5 52 | 5 50 | 10 2 |
| 29 Tu | 29. Berlin Crisis U.N. assem., '48 |  |  | ♏ | 5 54 | 5 47 | 10 28 | 10 5 | 54 5 47 | 10 34 | 5 52 | 5 49 | 11 2 |
| 30 We | ♄ ♄ ♄, ♂ ♂ ♄                       |  |  | ♏ | 5 56 | 5 45 | 11 34 | 10 5 | 55 5 45 | 11 39 | 5 53 | 5 47 | morn |

WEATHER FORECAST FOR SEPTEMBER

1st to 3rd—Clear and pleasant in eastern and southeastern sections. Blustery and wet in northwestern areas and clear skies to the south. Cooler weather in the upper Mississippi valley.

4th to 7th—Fair weather in the north Atlantic states with cool northerly winds, becoming stormy and disagreeable. Stormy in the southwestern states and hurricane weather in the lower Mississippi valley and southeastern sections.

8th to 11th—Fine agreeable weather in the west, with early morning fogs along the Pacific coast. Blustery squalls on the western Canadian border. Cool and frosty in the northeast, hot and dry in the southeast.

12th to 15th—Unsettled and unpleasant in most sections east of the Mississippi River with rains along the Atlantic coast. Fair in the northwestern states with pleasant westerly winds. Hot and dry in the southwest.

16th to 19th—Windy and blustery in southwest with rains in Rocky Mountains. Warm days and cool nights in Great Lakes and New England sections. Dry and sultry in lower Atlantic states. Pleasant in Oregon and Washington.

20th to 23rd—Cool and pleasant in most northern sections with brilliant Harvest Moon. Unsettled and windy in the southeast and Gulf states. Clear and pleasant in the southwest. Fair along the Missouri River valley.

24th to 27th—Stormy and unpleasant in the Ohio River valley and Great Lakes section. Heavy gales on the Atlantic coast and rains in the Appalachian Mountains. Cooler on the Pacific slope.

28th to 30th—Unsettled in the Mississippi valley and over the western plains. Rainy in the southeast and clear days and cold nights in the northwest. Cold showers in New England and upper Atlantic states.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 2 2 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



### Cubic Measure

|          |                                           |
|----------|-------------------------------------------|
| 1,728    | cubic inches = 1 cubic foot               |
| 27       | cubic feet = 1 cubic yard                 |
| 2,150.42 | cubic inches = 1 standard bushel          |
| 231      | cubic inches = 1 standard gallon (liquid) |
| 1        | cubic foot = 4/5 of a bushel              |
| 128      | cubic feet = 1 cord (wood)                |

### Land Measure

|                        |          |
|------------------------|----------|
| 10 rods by 16 rods     | = 1 acre |
| 5 rods by 32 rods      | = 1 acre |
| 4 rods by 40 rods      | = 1 acre |
| 5 yards by 968 yards   | = 1 acre |
| 20 yards by 242 yards  | = 1 acre |
| 40 yards by 121 yards  | = 1 acre |
| 220 feet by 198 feet   | = 1 acre |
| 110 feet by 396 feet   | = 1 acre |
| 60 feet by 726 feet    | = 1 acre |
| 300 feet by 145.2 feet | = 1 acre |
| 4840 square yards      | = 1 acre |

### Dry Measure

|         |            |          |          |
|---------|------------|----------|----------|
| 2 pints | = 1 quart  | 8 quarts | = 1 peck |
| 4 pecks | = 1 bushel |          |          |

### Miscellaneous

|                             |                        |
|-----------------------------|------------------------|
| 9 inches                    | = 1 span               |
| 12 dozen                    | = 1 gross              |
| 1 U. S. gallon              | = 231 cubic inches     |
| 1 British (Canadian) gallon | = 277.274 cubic inches |
| 1 pint of water weighs      | 1.0431 lbs.            |
| 1 gallon of water weighs    | 8.3448 lbs.            |
| 1 knot                      | = 1 1/6 mile           |
| 100 pounds of nails         | = 1 keg                |
| 196 pounds of flour         | = 1 barrel             |
| 150 pounds of potatoes      | = 1 barrel             |
| 280 pounds of salt          | = 1 barrel             |

### Cord Wood

A cord is 4 ft. wide, 4 ft. high, and 8 ft. long, and contains 128 cu. ft.

To find the number of cords in a pile of wood: Multiply length, width and height together; the product is reduced to cords by dividing by 128.

### Avoirdupois Weight

|               |                   |
|---------------|-------------------|
| 27 1/3 grains | = 1 dram          |
| 16 drams      | = 1 ounce         |
| 16 ounces     | = 1 pound         |
| 25 pounds     | = 1 quarter       |
| 100 pounds    | = 1 hundredweight |
| 2,000 pounds  | = 1 short ton     |
| 2,240 pounds  | = 1 long ton      |

### Liquid Measure

|                 |                    |
|-----------------|--------------------|
| 4 gills         | = 1 pint           |
| 16 fluid ounces | = 1 pint           |
| 2 pints         | = 1 quart          |
| 4 quarts        | = 1 gallon         |
| 31 1/2 gallons  | = 1 barrel         |
| 2 barrels       | = 1 hogshead       |
| U. S. gallon    | = 231 cubic inches |

### Square Measure

|        |                               |
|--------|-------------------------------|
| 144    | square inches = 1 square foot |
| 9      | square feet = 1 square yard   |
| 30 1/4 | square yards = 1 square rod   |
| 160    | square rods = 1 acre          |
| 40     | square rods = 1 rood          |
| 4      | roods = 1 acre                |
| 640    | acres = 1 square mile         |

### Weight per Bushel of Farm Seeds

| Crop             | Pounds | Crop            | Pounds |
|------------------|--------|-----------------|--------|
| Alfalfa.....     | 60     | Meadow fescue.. | 24     |
| Barley.....      | 48     | Millet.....     | 50     |
| Beans, field.... | 60     | Oatgrass.....   | 10     |
| Bent grass.....  | 16     | Oats.....       | 32     |
| Blue grass.....  | 14     | Orchard grass.. | 14     |
| Brome grass....  | 14     | Peas.....       | 60     |
| Buckwheat....    | 52     | Potatoes,       |        |
| Clover.....      | 60     | white.....      | 60     |
| Clover, sweet    |        | Rape.....       | 50     |
| unhulled.....    | 33     | Redtop.....     | 14     |
| Corn, shelled... | 56     | Rye.....        | 56     |
| Corn, dry ear..  | 70     | Rye grass.....  | 24     |
| Flax.....        | 56     | Sorghum.....    | 50     |
| Hungarian        |        | Soybeans.....   | 60     |
| grass.....       | 50     | Timothy.....    | 45     |
| Johnson grass..  | 28     | Vetch.....      | 60     |
| Kaffir corn....  | 56     | Wheat.....      | 60     |





October

MOON'S PHASES

|      | EASTERN |    |      | CENTRAL |    |      | MOUNTAIN |    |      | PACIFIC |    |      |
|------|---------|----|------|---------|----|------|----------|----|------|---------|----|------|
|      | D.      | H. | M.   | D.      | H. | M.   | D.       | H. | M.   | D.      | H. | M.   |
| N.M. | 7       | 7  | 40 A | 7       | 6  | 40 A | 7        | 5  | 40 A | 7       | 4  | 40 A |
| F.Q. | 15      | 4  | 44 A | 15      | 3  | 44 A | 15       | 2  | 44 A | 15      | 1  | 44 A |
| F.M. | 22      | 7  | 56 M | 22      | 6  | 56 M | 22       | 5  | 56 M | 22      | 4  | 56 M |
| L.Q. | 29      | 8  | 09 M | 29      | 7  | 09 M | 29       | 6  | 09 M | 29      | 5  | 09 M |

LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. | M. | W. | HISTORICAL EVENTS             | Moon Signs | Sun rises | Sun sets | Moon rises | SUN FAST | Sun rises | Sun sets | Moon rises | Sun rises | Sun sets | Moon rises |
|----|----|----|-------------------------------|------------|-----------|----------|------------|----------|-----------|----------|------------|-----------|----------|------------|
| 1  | Th |    | ♌ in ♍                        | ♌          | 5 57      | 5 43     | morn       | 10       | 5 56      | 5 44     | morn       | 5 54      | 5 46     | 12 3       |
| 2  | Fr |    | Allies entered N. Korea, 1950 | ♌          | 5 58      | 5 41     | 12 39      | 11       | 5 57      | 5 42     | 12 42      | 5 54      | 5 45     | 1 2        |
| 3  | Sa |    | ♌ ♌ ♌                         | ♌          | 5 59      | 5 39     | 1 43       | 11       | 5 58      | 5 40     | 1 45       | 5 55      | 5 43     | 2 0        |

| 40. 18th Sunday after Trinity    Matt. 22    Day's length 11h. 38m.    11h. 39m.    11h. 46m. |    |                                     |   |   |   |   |    |      |    |    |   |    |    |      |   |    |   |    |      |    |   |    |
|-----------------------------------------------------------------------------------------------|----|-------------------------------------|---|---|---|---|----|------|----|----|---|----|----|------|---|----|---|----|------|----|---|----|
| 4                                                                                             | Su | ♂ ♀ ♂                               | ♌ | 6 | 0 | 5 | 38 | 2    | 45 | 11 | 5 | 59 | 5  | 38   | 2 | 47 | 5 | 56 | 5    | 42 | 2 | 56 |
| 5                                                                                             | Mo | ♂ ♂ ♄, ♂ ♀ ♄, ♀ in aphelion         | ♌ | 6 | 1 | 5 | 36 | 3    | 46 | 12 | 6 | 0  | 5  | 36   | 3 | 46 | 5 | 56 | 5    | 40 | 3 | 50 |
| 6                                                                                             | Tu | ♄ in apogee                         | ♌ | 6 | 2 | 5 | 34 | 4    | 46 | 12 | 6 | 1  | 5  | 34   | 4 | 45 | 5 | 57 | 5    | 39 | 4 | 44 |
| 7                                                                                             | We | ♄ 7. Tokyo Rose sent. 10 yrs., 1949 | ♌ | 6 | 3 | 5 | 32 | sets | 12 | 6  | 3 | 5  | 33 | sets | 5 | 58 | 5 | 38 | sets |    |   |    |
| 8                                                                                             | Th | ♂ ♀ ♄                               | ♌ | 6 | 5 | 5 | 31 | 5    | 24 | 13 | 6 | 4  | 5  | 31   | 5 | 27 | 5 | 58 | 5    | 37 | 5 | 41 |
| 9                                                                                             | Fr | Fire Prevention Day. ♂ ♀ ♄, ♂ ♀ ♄   | ♌ | 6 | 6 | 5 | 29 | 5    | 50 | 13 | 6 | 5  | 5  | 30   | 5 | 53 | 5 | 59 | 5    | 36 | 6 | 13 |
| 10                                                                                            | Sa | ♀ in perihelion                     | ♌ | 6 | 7 | 5 | 27 | 6    | 20 | 13 | 6 | 6  | 5  | 28   | 6 | 25 | 6 | 0  | 5    | 35 | 6 | 49 |

| 41. 19th Sunday after Trinity |    | Matt. 9                          | Day's length 11h. 18m. |   |    |   | 11h. 20m. |      |    |    | 11h. 33m. |    |   |    |      |    |   |   |   |    |      |    |
|-------------------------------|----|----------------------------------|------------------------|---|----|---|-----------|------|----|----|-----------|----|---|----|------|----|---|---|---|----|------|----|
| 1                             | Su | Bulgaria signed Armistice, 1944  | ♌                      | 6 | 8  | 5 | 26        | 7    | 3  | 13 | 6         | 7  | 5 | 27 | 7    | 5  | 6 | 0 | 5 | 33 | 7    | 30 |
| 12                            | Mo | Columbus Day                     | ♌                      | 6 | 9  | 5 | 24        | 7    | 44 | 14 | 6         | 8  | 5 | 25 | 7    | 50 | 6 | 1 | 5 | 32 | 8    | 19 |
| 13                            | Tu | Pres. Truman flew to Hawaii, '50 | ♌                      | 6 | 10 | 5 | 22        | 8    | 38 | 14 | 6         | 9  | 5 | 23 | 8    | 44 | 6 | 2 | 5 | 31 | 9    | 14 |
| 14                            | We | ♌ stationary                     | ♌                      | 6 | 12 | 5 | 21        | 9    | 41 | 14 | 6         | 10 | 5 | 22 | 9    | 46 | 6 | 3 | 5 | 29 | 10   | 14 |
| 15                            | Th | 15.Truman-McArthur Conf.1950     | ♌                      | 6 | 13 | 5 | 19        | 10   | 50 | 14 | 6         | 11 | 5 | 21 | 10   | 55 | 6 | 3 | 5 | 28 | 11   | 18 |
| 16                            | Fr | ♌ in ♌, ♌ ♌ ♌                    | ♌                      | 6 | 14 | 5 | 17        | morn |    | 14 | 6         | 12 | 5 | 19 | morn |    | 6 | 4 | 5 | 27 | morn |    |
| 17                            | Sa | ♌ ♌ ♌                            | ♌                      | 6 | 15 | 5 | 16        | 12   | 3  | 14 | 6         | 13 | 5 | 17 | 12   | 7  | 6 | 5 | 5 | 26 | 12   | 25 |

| 42. |    | 20th Sunday after Trinity          |  | Matt. 22 | Day's length 10h. 58m. |   |    |   | 11h. 2m. |       |    |    | 11h. 19m. |    |   |    |       |    |   |    |   |    |       |    |
|-----|----|------------------------------------|--|----------|------------------------|---|----|---|----------|-------|----|----|-----------|----|---|----|-------|----|---|----|---|----|-------|----|
| 18  | Su | Hurricane devastated Miami, 1950   |  |          | ♊                      | 6 | 16 | 5 | 14       | 1     | 19 | 15 | 6         | 14 | 5 | 16 | 1     | 21 | 6 | 6  | 5 | 25 | 1     | 33 |
| 19  | Mo | Yanks landed on Leyte Island, 1944 |  |          | ♋                      | 6 | 17 | 5 | 13       | 2     | 35 | 15 | 6         | 15 | 5 | 15 | 2     | 36 | 6 | 7  | 5 | 24 | 2     | 41 |
| 20  | Tu | Paratroops in N. Korea, 1950       |  |          | ♋                      | 6 | 18 | 5 | 11       | 3     | 53 | 15 | 6         | 16 | 5 | 13 | 3     | 52 | 6 | 7  | 5 | 23 | 3     | 51 |
| 21  | We | ♈ in perigee                       |  |          | ♌                      | 6 | 20 | 5 | 10       | 5     | 13 | 15 | 6         | 17 | 5 | 12 | 5     | 10 | 6 | 8  | 5 | 22 | 5     | 2  |
| 22  | Th | 22. Jew-Arab Truce, Palas, '48     |  |          | ♌                      | 6 | 21 | 5 | 8        | rises |    | 16 | 6         | 18 | 5 | 10 | rises |    | 6 | 9  | 5 | 20 | rises |    |
| 23  | Fr | ♊ Gr. Elong. E. 24° 18', ♈ ♌ ☉,    |  |          | ♍                      | 6 | 22 | 5 | 7        | 5     | 31 | 16 | 6         | 20 | 5 | 9  | 5     | 36 | 6 | 10 | 5 | 19 | 5     | 59 |
| 24  | Sa | United Nations Day [☉ enters ♍]    |  |          | ♍                      | 6 | 23 | 5 | 5        | 6     | 18 | 16 | 6         | 21 | 5 | 7  | 6     | 24 | 6 | 10 | 5 | 18 | 6     | 51 |

| 43. 21st Sunday after Trinity |    | John 4                                 | Day's length 10h. 38m. |   |    |   |    |      |    |    |   |    | 10h. 42m. |    |      |    | 11h. 6m. |    |   |    |      |    |
|-------------------------------|----|----------------------------------------|------------------------|---|----|---|----|------|----|----|---|----|-----------|----|------|----|----------|----|---|----|------|----|
| 25                            | Su | Christ, the King, ♀ Gr. Hel. Lat. S. ♀ | ♏                      | 6 | 25 | 5 | 3  | 7    | 13 | 16 | 6 | 23 | 5         | 5  | 7    | 19 | 6        | 11 | 5 | 17 | 7    | 49 |
| 26                            | Mo | ♂ ♃ ♄ [♂ in Aphelion]                  | ♏                      | 6 | 26 | 5 | 2  | 8    | 15 | 16 | 6 | 24 | 5         | 4  | 8    | 21 | 6        | 12 | 5 | 16 | 8    | 49 |
| 27                            | Tu | Separation Norway and Sweden, 1905     | ♏                      | 6 | 27 | 5 | 1  | 9    | 22 | 16 | 6 | 25 | 5         | 3  | 9    | 27 | 6        | 13 | 5 | 15 | 9    | 53 |
| 28                            | We | ♄ in ♏, ♂ ♄ ♄                          | ♏                      | 6 | 28 | 4 | 59 | 10   | 28 | 16 | 6 | 26 | 5         | 1  | 10   | 32 | 6        | 14 | 5 | 14 | 10   | 53 |
| 29                            | Th | 29. Zwinglius, ♂ stationary            | ♏                      | 6 | 29 | 4 | 58 | 11   | 34 | 16 | 6 | 27 | 5         | 0  | 11   | 36 | 6        | 14 | 5 | 13 | 11   | 51 |
| 30                            | Fr | Death Fog in Penna. (20 d), 1948       | ♏                      | 6 | 31 | 4 | 57 | morn |    | 16 | 6 | 28 | 4         | 59 | morn |    | 6        | 15 | 5 | 12 | morn |    |
| 31                            | Sa | Hallowe'en                             | ♏                      | 6 | 32 | 4 | 56 | 12   | 37 | 16 | 6 | 29 | 4         | 58 | 12   | 39 | 6        | 16 | 5 | 11 | 12   | 49 |

WEATHER FORECAST FOR OCTOBER

1st to 3rd—Rainy weather in the lower Atlantic states and Gulf section and cold showers in the northeast. Unsettled in the central states, clear days and cold nights in the northwest.

4th to 7th—Fair weather in the Ohio River valley and Great Lakes sections, delightful fall weather in the southern states. Light rains in the northwest, but dry on the upper Pacific coast. Fair and hot in California.

8th to 11th—Stormy conditions over the northwest with high winds and heavy seas on the coast. Wind squalls in the Mississippi valley and unsettled in the southwestern states. Rain in most east and southeastern areas.

12th to 15th—Warm and dry in southern plateau area over southern plains, clear, frosty weather to north. Pleasant conditions in central sections and in Ohio Valley. Light frosts in New England. Fair and hot in the southeast.

16th to 19th—Unsettled in Rocky Mountain and western plateau area with showers along Pacific slope. Clear and cool in the upper Mississippi valley and eastward to the Atlantic. Scattered wind squalls in the southern states.

20th to 23rd—Hunter's Moon with changeable conditions in Great Lakes section and New England states. Fair and dry in lower Atlantic and Gulf states. Blustery in California and unsettled northward to the Canadian border.

24th to 27th—Cloudy and variable from the Gulf coast northward over the Atlantic states to New England and the Great Lakes. Unsettled in the Mississippi valley and westward, clearing the first of the week.

28th to 31st—Stormy conditions in southeastern states, becoming cooler. Cloudy with little rain in Missouri River valley and over northern plateau. Rains in Ohio River section and Atlantic states. Blustery on southern plains.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 6, 7, 8, 9, 10, 14, 15, 18, 19, 22, 23, 26, 27.

Do not plant on 1, 2, 3, 4, 5, 11, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 30, and 31.



# Rules of Thumb

## Hogs

The cost of growing hogs includes the cost of feeding the breeding herd.

Hog producers generally figure that they are not making money feeding hogs when

100 lbs. of hogs doesn't pay for 10 bushels of corn. Good hog producers can still make a little money when 100 lbs. of hogs buys only 7 bushels of corn.

| STANDARD FEED REQUIREMENTS                     | CORN     | PROTEIN |
|------------------------------------------------|----------|---------|
| Per 100 lbs. Pork Sold (Inc. breed herd)       | 7½ Bu.   | 40 Lbs. |
| Per Hog Marketed at 225 lbs. (Inc. breed herd) | 17 Bu.   | 90 Lbs. |
| From Birth to Weaning at 35 lbs.               | 40 Lbs.  | 6 Lbs.  |
| From Weaning to Market at 225 lbs.             | 12.0 Bu. | 70 Lbs. |

## Beef Cattle

There should be at least an 80 per cent calf crop. The average weight of the calves at weaning time should be 400 pounds or more.

In the feedlot it takes 12.5 bushels of corn to produce 100 pounds of beef.

## Dairy Cattle

Breed heifers by weight—not age.

| BREED            | WEIGHT   |
|------------------|----------|
| Ayrshire.....    | 650 Lbs. |
| Brown Swiss..... | 750 Lbs. |
| Guernsey.....    | 550 Lbs. |
| Holstein.....    | 750 Lbs. |
| Jersey.....      | 500 Lbs. |

The average dairy cow is worth about 40 times the price of 100 pounds of milk. It takes 7 pounds of feed (13-14 per cent protein) per pound of butterfat produced.

## Sheep

There should be one lamb to sell for every ewe. They should be ready by July 15 at 70 lbs. from farm flocks. Ewes must shear 8 lbs. of wool to be satisfactory.

## Poultry

Good hens eat 90 pounds of feed and produce 200 eggs. Poor hens eat 80 pounds

of feed and lay only 100 eggs. If you gather only 40 eggs per day from 100 hens, a 100 pound bag of feed makes only 13 to 15 dozen eggs—if you get 60 eggs the same bag of feed makes 18 to 20 dozen eggs.

Whenever it takes more than 7 dozen eggs to buy 100 pounds of feed (and if that condition lasts for long) farmers begin to cut down their laying flocks.

## Corn

It takes about 150 pounds of nitrogen, 25 pounds of phosphorus and 75 pounds of potassium to produce 100 bushels of corn.

Corn matures 51 days after it silks (with 2 days variation either way). It will still be high in moisture at this time, but needs only to dry out. A hard freeze will still damage it, but frost will not.

## Soybeans

A bushel of soybeans yields about nine pounds of oil and 48 pounds of meal. One cent per pound change in the price of soybean oil affects the price of soybeans nine cents per bushel. A change of \$5 per ton in the price of soybean meal means 12½ cents per bushel change in the price of beans.





| MOON'S PHASES |         |                   |         |         | LATITUDE |         |         | LATITUDE |          |                                                                                                | LATITUDE |       |                                                                                                 |       |       |
|---------------|---------|-------------------|---------|---------|----------|---------|---------|----------|----------|------------------------------------------------------------------------------------------------|----------|-------|-------------------------------------------------------------------------------------------------|-------|-------|
|               | EASTERN |                   | CENTRAL |         | MOUNTAIN |         | PACIFIC |          | SUN FAST | Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb. |          |       | Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif. |       |       |
|               | D.      | H. M.             | D.      | H. M.   | D.       | H. M.   | D.      | H. M.    |          |                                                                                                |          |       |                                                                                                 |       |       |
| N.M.          | 6       | 0 58 A            | 6       | 11 58 M | 6        | 10 58 M | 6       | 9 58 M   |          |                                                                                                |          |       |                                                                                                 |       |       |
| F.Q.          | 14      | 2 52 M            | 14      | 1 52 M  | 14       | 0 52 M  | 13      | 11 52 A  |          |                                                                                                |          |       |                                                                                                 |       |       |
| F.M.          | 20      | 6 12 A            | 20      | 5 12 A  | 20       | 4 12 A  | 20      | 3 12 A   |          |                                                                                                |          |       |                                                                                                 |       |       |
| L.Q.          | 28      | 3 16 M            | 28      | 2 16 M  | 28       | 1 16 M  | 28      | 0 16 M   |          |                                                                                                |          |       |                                                                                                 |       |       |
| D.            | D.      | HISTORICAL EVENTS |         |         |          |         |         |          | Moon     | Sun                                                                                            | Sun      | Moon  | Sun                                                                                             | Sun   | Moon  |
| M.            | W.      |                   |         |         |          |         |         |          | Signs    | rises                                                                                          | sets     | rises | rises                                                                                           | sets  | rises |
|               |         |                   |         |         |          |         |         |          | H. M.    | H. M.                                                                                          | H. M.    | M     | H. M.                                                                                           | H. M. | H. M. |

44. 22nd Sunday after Trinity Matt. 18 Day's length 10h. 21m. 10h. 26m. 10h. 53m.

|      |                                      |   |           |      |         |      |      |           |      |
|------|--------------------------------------|---|-----------|------|---------|------|------|-----------|------|
| 1 Su | All Saints' Day. ♀ Gr. Hel. Lat. N.  | ♍ | 6 33 4 54 | 1 38 | 16 6 30 | 4 56 | 1 39 | 6 17 5 10 | 1 45 |
| 2 Mo | All Souls' Day. ☾ in apogee          | ♍ | 6 35 4 53 | 2 38 | 16 6 32 | 4 55 | 2 38 | 6 18 5 9  | 2 38 |
| 3 Tu | General Elections. ♂♂♂, ♀ stationary | ♌ | 6 36 4 51 | 3 39 | 16 6 33 | 4 54 | 3 38 | 6 18 5 8  | 3 32 |
| 4 We | ♂ ♀ ☾                                | ♌ | 6 37 4 50 | 4 39 | 16 6 34 | 4 53 | 4 36 | 6 19 5 7  | 4 27 |
| 5 Th | ♂ ♀ ☾, ♂ ♀ ☾                         | ♌ | 6 38 4 49 | 5 41 | 16 6 35 | 4 52 | 5 38 | 6 20 5 7  | 5 22 |
| 6 Fr | ♂. Battle of Belmont, Mo., 1861      | ♌ | 6 39 4 47 | sets | 16 6 36 | 4 51 | sets | 6 21 5 6  | sets |
| 7 Sa | ♂ ♀ ♀, ♂ ♀ ☾                         | ♌ | 6 41 4 46 | 4 59 | 16 6 37 | 4 50 | 5 4  | 6 22 5 5  | 5 30 |

45. 23rd Sunday after Trinity Matt. 9 Day's length 10h. 4m. 10h. 11m. 10h. 41m.

|       |                               |   |           |      |         |      |      |          |       |
|-------|-------------------------------|---|-----------|------|---------|------|------|----------|-------|
| 8 Su  | "Trent Affair", 1861          | ♌ | 6 42 4 45 | 5 42 | 16 6 38 | 4 49 | 5 48 | 6 23 5 4 | 6 16  |
| 9 Mo  | U. S. Coal Strike ended, 1949 | ♌ | 6 43 4 44 | 6 35 | 16 6 40 | 4 48 | 6 41 | 6 24 5 3 | 7 10  |
| 10 Tu | Phone Strike in U. S., 1950   | ♌ | 6 44 4 43 | 7 34 | 16 6 41 | 4 47 | 7 40 | 6 25 5 3 | 8 8   |
| 11 We | Armistice Day                 | ♌ | 6 46 4 42 | 8 41 | 16 6 42 | 4 46 | 8 46 | 6 26 5 2 | 9 12  |
| 12 Th | ☾ in ☾                        | ♌ | 6 47 4 41 | 9 52 | 16 6 43 | 4 45 | 9 56 | 6 26 5 1 | 10 15 |
| 13 Fr | ♀ in ☾, ♂ ♀ ♀                 | ♌ | 6 48 4 40 | 11 5 | 16 6 44 | 4 44 | 11 7 | 6 27 5 1 | 11 21 |
| 14 Sa | 14. Transit of ♀. Inf. ♂ ♀ ☾  | ♌ | 6 49 4 39 | morn | 15 6 45 | 4 43 | morn | 6 28 5 1 | morn  |

46. 24th Sunday after Trinity John 6 Day's length 9h. 47m. 9h. 55m. 10h. 31m.

|       |                                 |   |           |       |         |      |       |           |       |
|-------|---------------------------------|---|-----------|-------|---------|------|-------|-----------|-------|
| 15 Su | Brazil became a Republic, 1889  | ♌ | 6 51 4 38 | 12 18 | 15 6 47 | 4 42 | 12 19 | 6 29 5 0  | 12 26 |
| 16 Mo | Yanks capture Immendorf, 1944   | ♌ | 6 52 4 37 | 1 32  | 15 6 49 | 4 41 | 1 32  | 6 30 4 59 | 1 34  |
| 17 Tu | U. S. Navy shelled Buka, 1943   | ♌ | 6 53 4 36 | 2 47  | 15 6 50 | 4 40 | 2 46  | 6 31 4 58 | 2 41  |
| 18 We | ☾ in perigee, ♀ in perihelion   | ♌ | 6 55 4 36 | 4 5   | 15 6 51 | 4 39 | 4 1   | 6 32 4 58 | 3 51  |
| 19 Th | Yanks capt. Kapson, Korea, 1950 | ♌ | 6 56 4 35 | 5 24  | 14 6 52 | 4 38 | 5 20  | 6 33 4 57 | 5 2   |
| 20 Fr | 20. Floods in Reno, Nev., 1950  | ♌ | 6 57 4 34 | rises | 14 6 53 | 4 38 | rises | 6 34 4 57 | rises |
| 21 Sa | Mayflower compact signed, 1620  | ♌ | 6 58 4 33 | 4 56  | 14 6 54 | 4 37 | 5 2   | 6 35 4 57 | 5 31  |

47. 25th Sunday after Trinity Matt. 24 Day's length 9h. 34m 9h. 41m. 10h. 20m.

|       |                                   |   |           |       |         |      |       |           |       |
|-------|-----------------------------------|---|-----------|-------|---------|------|-------|-----------|-------|
| 22 Su | ♂ ♀ ☾ ☾ enters ♀                  | ♌ | 6 59 4 33 | 5 56  | 14 6 55 | 4 36 | 6 2   | 6 36 4 56 | 6 32  |
| 23 Mo | ♂ ♀ ♀, ♀ stationary               | ♌ | 7 1 4 32  | 7 3   | 13 6 57 | 4 36 | 7 8   | 6 37 4 56 | 7 35  |
| 24 Tu | ☾ in ☾, ♂ ♀ ☾                     | ♌ | 7 2 4 31  | 8 11  | 13 6 58 | 4 35 | 8 16  | 6 37 4 55 | 8 39  |
| 25 We | Hurricane hit New York City, 1950 | ♌ | 7 3 4 31  | 9 19  | 13 6 59 | 4 35 | 9 23  | 6 38 4 55 | 9 40  |
| 26 Th | Thanksgiving Day                  | ♌ | 7 4 4 30  | 10 24 | 13 7 0  | 4 34 | 10 26 | 6 39 4 55 | 10 40 |
| 27 Fr | Korean Reds capt. Chongju, 1950   | ♌ | 7 5 4 30  | 11 27 | 12 7 1  | 4 34 | 11 28 | 6 40 4 54 | 11 35 |
| 28 Sa | 28. ♀ Gr. Hel. Lat. N.            | ♌ | 7 6 4 29  | morn  | 12 7 2  | 4 34 | morn  | 6 41 4 54 | morn  |

48. 1st Sunday in Advent Matt. 21 Day's length 9h. 21m. 9h. 30m. 10h. 12m.

|       |                                    |   |          |       |        |      |       |           |       |
|-------|------------------------------------|---|----------|-------|--------|------|-------|-----------|-------|
| 29 Su | India "Untouchability" ended, 1948 | ♌ | 7 8 4 29 | 12 28 | 12 7 3 | 4 33 | 12 29 | 6 42 4 54 | 12 30 |
| 30 Mo | ☾ in apogee                        | ♌ | 7 9 4 28 | 1 28  | 11 7 4 | 4 33 | 1 27  | 6 43 4 54 | 1 24  |

WEATHER FORECAST FOR NOVEMBER

1st to 3rd—Cold wave, sunny skies and heavy frosts in the Ohio River valley and upper Atlantic states. Fair and cooler in lower Mississippi valley and eastward. Pleasant in the west, unsettled and blustery at Canadian border.

4th to 7th—Windy weather in the Great Lakes area and westward over the north-central states. Rain squalls in the Appalachian Mountains. Showers on the Pacific slope and wind storms on the western plains.

8th to 11th—Pleasant and cool in northwestern sections and along the Missouri River valley to the upper Mississippi. Scattered rains in the south and southeast. Wind squalls in New England and mid-Atlantic states.

12th to 15th—Fair and cool on the western plains and delightful Indian Summer in the southwest. Rainy and disagreeable in the northwest and in the Ohio River valley. Overcast and windy in the southeast.

16th to 19th—Rainy and cold in northeastern sections and chilling winds on the Great Lakes and north Atlantic. Stormy in the Gulf and lower Mississippi valley area. Cold winds in the northwest. Blustery in California.

20th to 23rd—Mild and pleasant in the Missouri River valley and along the Pacific slope. Changeable and disagreeable on the southern plains. Showers in the southeastern sections and northeast storms in New England.

24th to 27th—Unsettled in most sections of the north, while in the south fair conditions prevail quite generally. Snow flurries in the northern Rockies and rains on the coast of Oregon and Washington. Windy in California.

28th to 30th—Mostly clear and cold in the upper Mississippi valley and north Atlantic states. Clear skies quite generally in the west and northwest. Warm and dry in the southeast.

PLANTING DAYS ACCORDING TO MOON SIGNS

Plant on 2, 3, 4, 5, 6, 10, 11, 14, 15, 18, 19, 22, 23, 24, 30.  
Do not plant on 1, 7, 8, 9, 12, 13, 16, 17, 20, 21, 25, 26, 27, 28, 29.



## Rules of Thumb (Continued)

### Buildings

Percentage of gross income that livestock can pay for buildings is about as follows:

|                |     |
|----------------|-----|
| Dairy Cow..... | 10% |
| Beef Cow.....  | 8%  |
| Sow.....       | 6%  |
| Ewe.....       | 7%  |
| Hen.....       | 9%  |

To determine total money that can be invested in buildings for a herd or flock allowing an 8% return to the building per year, divide the total rent that can be paid by 8, multiply by 100 and then multiply the result by the number of head. Thus if a dairy herd of 25 cows is bringing in \$260.00 per head per year divide the rent per cow of \$26.00 by 8 and multiply by 100 to get the investment justified per cow of \$325.00 then multiply by 25 to arrive at a total of \$8125.00 as the amount of total building investment this herd will reasonably support.

### Skim Milk

One hundred pounds of skim milk fed to pigs will replace one-fifth bushel of corn and seven pounds of tankage. Stated in another way, one hundred pounds of skim milk is worth one-half bushel of corn. Skim milk can be fed efficiently to pigs at the rate of about one pound of skim milk for each pound of concentrate fed. If fed in greater quantity the feed value of the extra milk goes down fast.

### Whey

Whey is worth about one-half as much per 100 pounds as skim milk and only 1/60 as much as tankage. Whey should always be pasteurized at the plant to prevent the spread of disease. Sour whey is as valuable as sweet whey.

### Pasture

During a six month pasture period, a cow removes from the soil approximately 115

lbs. of nitrogen, 26 lbs. of phosphorus, 93 lbs. of potash and 37 lbs. of lime.

Yields in pounds of beef per acre with different pasture systems.

---

|                                   |                  |
|-----------------------------------|------------------|
| Bluegrass.....                    | 105 Lbs. of Beef |
| Bluegrass and<br>lespedeza.....   | 175 Lbs. of Beef |
| Bluegrass, lesp. and<br>fert..... | 195 Lbs. of Beef |

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### Fence Posts

A 6" corner post with two supporting 5" posts will build a strong fence corner. Extra large posts do not increase the strength of fence corners much. But, doubling the depth of a post hole makes the corner post 4 times stronger.

### Farm Investment with Safety

A man should be able to pay down at least 50 per cent of his total investment (land, buildings, machinery, livestock and working capital) if he is to pay out on the basis of farm income and profits alone.

Ranch investments under normal conditions should not exceed \$150 per cow for land, buildings, and equipment.

Dairy farm investments under normal conditions should not exceed \$400 per cow.

### Law

Contracts that must be *written* are:

- Real estate sales contracts.
- Those given in consideration of marriage.
- Guarantees.
- Contracts that cannot be performed within a year.
- Contracts for sale of goods if the value exceeds certain minimums, depending upon the state law.

To be enforceable, contracts must:

- Be between legally competent parties.





# December

## MOON'S PHASES

|      | EASTERN |    |      | CENTRAL |    |      | MOUNTAIN |    |      | PACIFIC |    |      |
|------|---------|----|------|---------|----|------|----------|----|------|---------|----|------|
|      | D.      | H. | M.   | D.      | H. | M.   | D.       | H. | M.   | D.      | H. | M.   |
| N.M. | 6       | 5  | 48 M | 6       | 4  | 48 M | 6        | 3  | 48 M | 6       | 2  | 48 M |
| F.Q. | 13      | 11 | 30 M | 13      | 10 | 30 M | 13       | 9  | 30 M | 13      | 8  | 30 M |
| F.M. | 20      | 6  | 43 M | 20      | 5  | 43 M | 20       | 4  | 43 M | 20      | 3  | 43 M |
| L.Q. | 28      | 0  | 43 M | 27      | 11 | 43 A | 27       | 10 | 43 A | 27      | 9  | 43 A |

## LATITUDE

Of Boston, New England, New York State, S. Michigan, Wisconsin, Iowa, Wyo. and Oregon.

## LATITUDE

Of New York City, Philadelphia, Pa., Conn., New Jersey, Ohio, Indiana, Cal., Illinois and Neb.

## LATITUDE

Of Charleston, No. and So. Car., Ga., Ala., Miss., Ark., No. La. and Texas, Arizona, So. Calif.

| D. | D. | HISTORICAL EVENTS |                       | Moon Signs | Sun rises |    | Sun sets |    | Moon rises |    | SUN FAST | Sun rises |    | Sun sets |    | Moon rises |    | Sun rises |    | Sun sets |    | Moon rises |    |
|----|----|-------------------|-----------------------|------------|-----------|----|----------|----|------------|----|----------|-----------|----|----------|----|------------|----|-----------|----|----------|----|------------|----|
| M. | W. |                   |                       |            | H.        | M. | H.       | M. | H.         | M. | M.       | H.        | M. | H.       | M. | H.         | M. | H.        | M. | H.       | M. | H.         | M. |
| 1  | Tu | ♂♂♂, ♀            | Gr. Elong. W. 20° 21' | ♂          | 7         | 10 | 4        | 28 | 2          | 29 | 11       | 7         | 5  | 4        | 33 | 2          | 27 | 6         | 44 | 4        | 54 | 2          | 19 |
| 2  | We | ♂Ψ♂               |                       | ♂          | 7         | 11 | 4        | 28 | 3          | 30 | 10       | 7         | 6  | 4        | 32 | 3          | 27 | 6         | 45 | 4        | 54 | 3          | 14 |
| 3  | Th | ♂♂♂               |                       | ♂          | 7         | 12 | 4        | 27 | 4          | 33 | 10       | 7         | 7  | 4        | 32 | 4          | 29 | 6         | 46 | 4        | 54 | 4          | 11 |
| 4  | Fr | ♂♂♂               |                       | ♂          | 7         | 13 | 4        | 27 | 5          | 38 | 10       | 7         | 8  | 4        | 32 | 5          | 32 | 6         | 46 | 4        | 54 | 5          | 9  |
| 5  | Sa | ♂♀♂               |                       | ♂          | 7         | 14 | 4        | 27 | 6          | 41 | 9        | 7         | 9  | 4        | 32 | 6          | 34 | 6         | 47 | 4        | 54 | 6          | 8  |

### 49. 2nd Sunday in Advent

Luke 21

Day's length 9h. 12m.

9h. 22m.

10h 6m.

|    |    |                                                                                   |                                   |                                                                                   |   |    |   |    |       |   |   |    |   |    |       |   |    |   |    |       |
|----|----|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|---|----|---|----|-------|---|---|----|---|----|-------|---|----|---|----|-------|
| 6  | Su |  | 6.W.Va. Mine disaster,1907 ☾      |  | 7 | 15 | 4 | 27 | sets  | 9 | 7 | 10 | 4 | 32 | sets  | 6 | 48 | 4 | 54 | sets  |
| 7  | Mo |                                                                                   | U.S.declar.Waron Austria,1917     |  | 7 | 16 | 4 | 27 | 5 27  | 8 | 7 | 11 | 4 | 32 | 5 33  | 6 | 49 | 4 | 54 | 6 2   |
| 8  | Tu |                                                                                   | Immaculate Conception             |  | 7 | 17 | 4 | 27 | 6 33  | 8 | 7 | 12 | 4 | 32 | 6 38  | 6 | 49 | 4 | 54 | 7 4   |
| 9  | We | ♄ in ♀                                                                            |                                   |  | 7 | 18 | 4 | 27 | 7 44  | 7 | 7 | 13 | 4 | 32 | 7 48  | 6 | 50 | 4 | 54 | 8 9   |
| 10 | Th |                                                                                   | Marines escaped:Chinese Trap,1950 | ≈                                                                                 | 7 | 19 | 4 | 26 | 8 56  | 7 | 7 | 13 | 4 | 32 | 8 59  | 6 | 51 | 4 | 55 | 9 14  |
| 11 | Fr |                                                                                   | Anti-White Riots, Singapore,1950  | ≈                                                                                 | 7 | 20 | 4 | 26 | 10 8  | 7 | 7 | 14 | 4 | 32 | 10 10 | 6 | 51 | 4 | 55 | 10 19 |
| 12 | Sa |                                                                                   | Floods in Oregon, 1948            | ☾                                                                                 | 7 | 21 | 4 | 27 | 11 21 | 6 | 7 | 15 | 4 | 32 | 11 22 | 6 | 52 | 4 | 55 | 11 24 |

### 50. 3rd Sunday in Advent

Matt. 11

Day's length 9h. 5m.

9h. 16m.

10h. 2m.

|    |    |                                                                                                                   |   |   |    |   |    |       |   |   |    |   |    |       |   |    |   |    |       |
|----|----|-------------------------------------------------------------------------------------------------------------------|---|---|----|---|----|-------|---|---|----|---|----|-------|---|----|---|----|-------|
| 13 | Su |  13. ♂♂Ψ, 8 ♀☾                 | ♂ | 7 | 22 | 4 | 27 | morn  | 6 | 7 | 16 | 4 | 32 | morn  | 6 | 53 | 4 | 55 | morn  |
| 14 | Mo |  Water shortage in N. Y., 1949 | ♂ | 7 | 22 | 4 | 27 | 12 29 | 5 | 7 | 17 | 4 | 32 | 12 31 | 6 | 54 | 4 | 56 | 12 31 |
| 15 | Tu | Allies bombed Tunis, 1942                                                                                         | ♂ | 7 | 23 | 4 | 27 | 1 48  | 5 | 7 | 17 | 4 | 33 | 1 46  | 6 | 54 | 4 | 56 | 1 37  |
| 16 | We | Ember Day ☾ in Perigee                                                                                            | ♂ | 7 | 24 | 4 | 28 | 3 4   | 4 | 7 | 18 | 4 | 33 | 3 0   | 6 | 55 | 4 | 56 | 2 45  |
| 17 | Th | Chinese capture Hamhung, 1950                                                                                     | ♂ | 7 | 25 | 4 | 28 | 4 21  | 4 | 7 | 19 | 4 | 33 | 4 16  | 6 | 56 | 4 | 57 | 3 55  |
| 18 | Fr | Ember Day                                                                                                         | ♂ | 7 | 25 | 4 | 29 | 5 36  | 3 | 7 | 19 | 4 | 34 | 5 30  | 6 | 56 | 4 | 57 | 5 5   |
| 19 | Sa | Ember Day. ♂ ♀☾                                                                                                   | ♂ | 7 | 26 | 4 | 29 | 6 45  | 3 | 7 | 20 | 4 | 34 | 6 38  | 6 | 57 | 4 | 58 | 6 12  |

### 51. 4th Sunday in Advent

John 1

Day's length 9h. 3m

9h. 13m.

10h. 1m.

|    |    |   |                                    |   |   |    |   |    |       |     |   |   |    |   |    |       |   |   |    |   |    |       |
|----|----|---|------------------------------------|---|---|----|---|----|-------|-----|---|---|----|---|----|-------|---|---|----|---|----|-------|
| 20 | Su | ☹ | 20. South Car. seceded, 1860       | ☿ | 7 | 26 | 4 | 29 | rises | ☿   | 2 | 7 | 21 | 4 | 34 | rises | ♂ | 6 | 57 | 4 | 58 | rises |
| 21 | Mo | ☹ | ☿ in ♀, ☼ enters ♀, Winter begins  | ☿ | 7 | 27 | 4 | 30 | 5 50  | ☿   | 2 | 7 | 21 | 4 | 35 | 5 55  | ♂ | 6 | 58 | 4 | 58 | 6 20  |
| 22 | Tu | ☹ | ♂ ☿ ☿, ♀ in ☿                      | ☿ | 7 | 28 | 4 | 30 | 6 59  | ☿   | 1 | 7 | 22 | 4 | 35 | 7 3   | ♂ | 6 | 58 | 4 | 59 | 7 24  |
| 23 | We | ☹ | Jap War Lords hanged. 1948         | ☿ | 7 | 28 | 4 | 31 | 8 7   | ☿   | 1 | 7 | 22 | 4 | 36 | 8 10  | ♂ | 6 | 59 | 4 | 59 | 8 25  |
| 24 | Th | ☹ | Vigil of Christmas                 | ☿ | 7 | 28 | 4 | 32 | 9 12  | Sl. | ☿ | 7 | 23 | 4 | 37 | 9 14  | ♂ | 6 | 59 | 5 | 0  | 9 24  |
| 25 | Fr | ☹ | Christmas Day                      | ☿ | 7 | 29 | 4 | 32 | 10 15 | ☿   | 0 | 7 | 23 | 4 | 37 | 10 16 | ♂ | 7 | 0  | 5 | 0  | 10 20 |
| 26 | Sa | ☹ | Christmas Holiday Deaths 724, 1950 | ☿ | 7 | 29 | 4 | 33 | 11 16 | ☿   | 1 | 7 | 23 | 4 | 38 | 11 15 | ♂ | 7 | 0  | 5 | 1  | 11 14 |

### 52. 1st Sunday after Christmas Matt. 1

Day's length 9h. 3m.

9h. 14m.

10h. 2m.

|    |    |                                                                                                         |                                                                                     |   |    |   |    |       |   |   |    |   |    |       |   |   |   |   |      |
|----|----|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|----|---|----|-------|---|---|----|---|----|-------|---|---|---|---|------|
| 27 | Su |  27. (C.S.T.) ♀ in ♀ |  | 7 | 30 | 4 | 33 | morn  | 1 | 7 | 24 | 4 | 38 | morn  | 7 | 0 | 5 | 2 | morn |
| 28 | Mo | 28. (E.S.T.), <i>Holy Innocents</i> , ♂ in                                                              |  | 7 | 30 | 4 | 34 | 12 17 | 2 | 7 | 24 | 4 | 39 | 12 15 | 7 | 1 | 5 | 2 | 12 9 |
| 29 | Tu | ♂ ♀ ♂ [apogee]                                                                                          |  | 7 | 30 | 4 | 35 | 1 18  | 2 | 7 | 24 | 4 | 40 | 1 15  | 7 | 1 | 5 | 3 | 1 3  |
| 30 | We | ♂ ♂ ♂, ♀ ♀ ♂                                                                                            |  | 7 | 30 | 4 | 35 | 2 19  | 3 | 7 | 25 | 4 | 40 | 2 15  | 7 | 1 | 5 | 4 | 1 59 |
| 31 | Th | <i>New Year's Eve</i>                                                                                   |  | 7 | 30 | 4 | 36 | 3 22  | 3 | 7 | 25 | 4 | 41 | 3 17  | 7 | 2 | 5 | 4 | 2 57 |

## WEATHER FORECAST FOR DECEMBER

1st to 3rd—Stormy weather in the northwestern states with heavy gales on the Pacific coast. Fair in the Ohio River valley and north Atlantic section, becoming overcast and windy. Generally pleasant in the southeast and southwest.

4th to 7th—Clearing and colder in western parts and warm, sunny weather in California. Snow squalls in the Great Lakes area and eastward to New England. Continued mild in the lower Atlantic states.

8th to 11th—Windy and colder in the Mississippi valley with chilling winds sweeping down over the southern states. Wind squalls on the western plains and unsettled in the Rockies and on the Pacific slope.

12th to 15th—High winds and heavy rains on Pacific coast with snow storms on northern plateau and blizzards along Canadian border. Threatening in central sections and clear and cold in east, becoming stormy and unpleasant.

16th to 19th—Unsettled and blustery at most points along eastern seaboard with snow storms in the Appalachian Mountains and showers in the Gulf states. Pleasant in the Mississippi Valley and generally fair west to the Pacific.

20th to 23rd—Rainy and unpleasant in lower Mississippi valley and southern plains, snow flurries north and northwest. Unsettled in southwest. Light rain or snow in middle Atlantic and New England. Showers southeast.

24th to 27th—Fair weather in northeastern sections and much colder, warm and sunny in the lower Atlantic and Gulf states. Stormy in western areas with scattered rains or snow. Overcast in the central states.

28th to 31st—Stormy in most sections east of Mississippi River with cold winds deep into the south. Warm and dry in southwest. Snow flurries on northern plains and westward to Cascade Mountains. Rain on upper Pacific slope.

## PLANTING DAYS ACCORDING TO MOON SIGNS



- (b) Express an agreement.
- (c) Show sufficient consideration.
- (d) Be legal as to object and subject matter.

One partner can bind a partnership and each partner is responsible for all of the firm's debts.

Partnerships usually are created by participating in the profits of an enterprise, as profits, and makes the partners also liable for losses.

A bill of sale is a written instrument used to transfer the title to personal property. It is particularly important to require a bill of sale when possession is left even for a short time with the seller. Take delivery at once if the integrity or solvency of the seller is in question.

The seller impliedly warrants the title to the goods sold. If he knows the use for which they are being purchased, he impliedly warrants that they are fit for the use. The same principle extends to the matter of latent defects of manufactured goods and the quality of food stuffs.

A deed is a written instrument used to convey the title of real estate.

Warranty deeds covenant that the title is good and the grantor, or seller, agrees to keep the purchaser harmless against all claimants.

Quit claim deeds warrant nothing and merely convey such right, title and interest, if any, which the grantor has.

An indorser of a negotiable instrument becomes liable to any subsequent holder if the maker fails to pay. Such liability is avoided by a qualified indorsement using such a statement as, "Without Recourse."

A check must be presented for payment within a reasonable time after its issue or the drawer will be discharged from liability thereon to the extent of the loss caused by the delay.

A note does not bear interest unless so stated but all notes bear interest after maturity, at the legal rate unless some other after-maturity rate is specified.

A note is governed by the laws of the state where it is made payable regardless of where drawn.

If a note is lost or stolen, the maker is not thereby released; the amount and consideration may be orally proved. A note is not the debt but is only one evidence of the debt. If the note, the best evidence of the debt, is lost, then it may be established by other competent evidence.

Forgery is a material alteration of a note or written instrument with intent to defraud. A forged instrument is not commercial paper. A party or bank paying money on a forged note or check, believing it to be genuine, must stand the loss. The one whose name is forged is not responsible.

Have all parties who may claim ownership sign chattel mortgages and the notes, especially the wife.

No person should be allowed to occupy real estate even for a very temporary period without a written lease.

Be sure to show a consideration in the lease and whether leased by the day, week, or month. These points are most apt to be overlooked in temporary and accommodation leases.

If a squatter moves onto a property either have him sign a lease or serve him with notice to vacate.

Both the husband and wife should sign leases. This facilitates collection in the event of family trouble or divorce.

One Animal Unit is:

- 1 Horse
- 2 Colts under 2 years old
- 1 Cow or mature bull
- 1½ Yearling cattle
- 2 Weaned calves
- 3 Cattle on feed
- 5 Mature sheep
- 10 Weaned lambs
- 15 Spring pigs



# RECORD OF FARM EQUIPMENT

| EQUIPMENT | MAJOR<br>RECOMMENDATIONS<br>E.O. = Engine Oil<br>G.O. = Gear Oil<br>Gr. = Greases |  | DATE<br>SERVICED | LUBRICANT                      |             |
|-----------|-----------------------------------------------------------------------------------|--|------------------|--------------------------------|-------------|
|           |                                                                                   |  |                  | QUANTITY USED<br>Engine<br>Oil | Gear<br>Oil |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |
|           | E.O.                                                                              |  |                  |                                |             |
|           | G.O.                                                                              |  |                  |                                |             |
|           | Gr.                                                                               |  |                  |                                |             |



## LUBRICATION AND MAINTENANCE

[illegible]



# 1954 CALENDAR

JANUARY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

FEBRUARY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    | 1  | 2  | 3  | 4  | 5  | 6  |
| 7  | 8  | 9  | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 |    |    |    |    |    |    |

MARCH

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    | 1  | 2  | 3  | 4  | 5  | 6  |
| 7  | 8  | 9  | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |    |    |    |

APRIL

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

AUGUST

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |    |    |    |    |

JULY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

JUNE

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    | 1  | 2  | 3  | 4  | 5  |    |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |    |    |    |

MAY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |    |    |    |    |    |

NOVEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    | 1  | 2  | 3  | 4  | 5  | 6  |
| 7  | 8  | 9  | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 |    |    |    |    |

DECEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

SEPTEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

OCTOBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |